

MODEL (1)

Choose the correct answer :

- ( 1 ) If  $x + 2 = -3$  , then  $x = \dots\dots\dots$  ( - 1 or 1 or 5 or - 5 )  
( 2 )  $3 - |-3| = \dots\dots\dots$  ( 0 or 1 or 3 or 6 )  
( 3 ) If the lateral area of a cube is  $36 \text{ cm}^2$  , then its total area =  $\dots\dots\dots \text{ cm}^2$   
( 144 or 81 or 54 or 96 )  
( 4 )  $5^2 \times 2^2 = \dots\dots\dots$  (  $5^4$  or  $2^4$  or  $10^2$  or  $10^4$  )  
( 5 )  $|-5| + 7 = \dots\dots\dots$  ( 2 or zero or 7 or 12 )  
( 6 )  $\{(-1)^{\text{zero}}, (\text{zero})^2\} \dots\dots\dots \mathbb{Z}$  (  $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$  )  
( 7 ) The number that satisfies the inequality  $x < -2$  is  $\dots\dots\dots$   
( - 3 or - 2 or - 1 or 0 )

MODEL (2)

- ( 1 )  $2^6 \times 2^2 \div 2^7 = \dots\dots\dots$  (  $2^8$  or  $2^{12}$  or  $2^5$  or 2 )  
( 2 ) The equation :  $2^6 + x^5 = 100$  is of the  $\dots\dots\dots$  degree.  
(  $11^{\text{th}}$  or  $5^{\text{th}}$  or  $6^{\text{th}}$  or  $1^{\text{st}}$  )  
( 3 )  $3^2 \times 3^3 = 3^{\dots\dots\dots}$  ( 5 or 3 or 2 or 1 )  
( 4 ) The area of the circle whose radius length is  $2\pi \text{ cm}$ . is  $\dots\dots\dots \text{ cm}^2$   
(  $4\pi$  or  $2\pi^2$  or 12.56 or  $4\pi^3$  )  
( 5 ) The integer which satisfies the inequality :  $y < -3$  is  $\dots\dots\dots$   
( - 2 or - 8 or 0 or 1 )  
( 6 ) If  $3x = -9$  , then  $-5x = \dots\dots\dots$  ( 15 or 9 or - 15 or  $-|-15|$  )  
( 7 ) The height of the cuboid whose lateral area is  $160 \text{ cm}^2$  and the dimensions of its base are 3 cm. and 7 cm. equals  $\dots\dots\dots \text{ cm}$ .  
( 6 or 8 or 10 or 16 )

### MODEL (3)

( 1 ) The number that satisfies the inequality  $x > -4$  is .....

( - 5 or - 6 or - 4 or - 3 )

( 2 ) The number that satisfies the inequality :  $x - 2 > 3$  is .....

( 3 or 4 or 5 or 6 )

( 3 )  $(-100)^{\text{zero}} = \dots\dots\dots$

( - 100 or 100 or zero or 1 )

( 4 ) The additive inverse of  $(-5)^2$  is ..... ( 25 or 5 or - 5 or - 25 )

( 5 ) If  $x + 1 = 2$  , then  $x = \dots\dots\dots$  where  $x \in \mathbb{N}$  ( 3 or 1 or - 1 or - 3 )

( 6 ) A cuboid with a square base , its lateral area is  $224 \text{ cm}^2$  , its height is 14 cm.  
 , then the side length of its base is ..... cm. ( 14 or 4 or 2 or 3 )

( 7 ) The equation :  $x^3 + 1 = 10$  is of the ..... degree.

( first or second or third or fourth )

### MODEL (4)

( 1 ) If  $3x = -9$  ,  $x \in \mathbb{Z}$  , then  $x + 1 = \dots\dots\dots$  ( - 3 or - 2 or - 1 or 4 )

( 2 ) The lateral area of the cube = area of one face  $\times \dots\dots\dots$

( 6 or 5 or 4 or 3 )

( 3 )  $(5)^{\text{zero}} = \dots\dots\dots$

( zero or 5 or 1 or 50 )

( 4 ) If  $a < b$  , then  $-3a \dots\dots\dots -3b$

( < or > or = or  $\leq$  )

( 5 )  $(-3) \times |-5| = \dots\dots\dots$

( 15 or - 15 or 8 or - 8 )

( 6 )  $9^7 \div 9^5 = \dots\dots\dots$

(  $9^{-12}$  or  $9^2$  or  $9^{\text{zero}}$  or  $9^{35}$  )

( 7 ) A circle of diameter length 8 cm. , then its area = .....  $\pi \text{ cm}^2$

( 4 or 8 or 16 or 64 )

### MODEL (5)

Choose the correct answer :

- (1)  $(|-9| + 3) + 2 \dots\dots\dots \mathbb{Z}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )
- (2) A cube the perimeter of its base is 36 cm. , then its lateral area =  $\dots\dots\dots \text{cm}^2$ .  
(9 or 324 or 36 or 486)
- (3) The number which satisfies the inequality :  $x > -2$  is  $\dots\dots\dots$   
(1 or -4 or -3 or -2)
- (4)  $(-19)^0 + (19)^0 = \dots\dots\dots$   
(-1 or zero or 1 or 2)
- (5)  $(-1)^{104} + (-1)^{103} = \dots\dots\dots$   
(0 or 2 or -1 or 1)
- (6)  $3^2 + 3^2 + 3^2 = \dots\dots\dots$   
( $2^6$  or  $4^6$  or  $3^3$  or  $2^9$ )
- (7) The L.S.A. of the cuboid whose dimensions are 3 cm. , 4 cm. and 0.6 dm.  
is  $\dots\dots\dots$  ( $72 \text{ cm}^2$  or  $8.4 \text{ dm}^2$  or  $84 \text{ dm}^2$  or  $84 \text{ cm}^2$ )

### MODEL (6)

- (1)  $|-98| \dots\dots\dots \mathbb{Z}^-$  ( $\notin$  or  $\in$  or  $\subset$  or  $\not\subset$ )
- (2) The additive inverse of  $(-3)^2$  is  $\dots\dots\dots$  (9 or 3 or -3 or -9)
- (3) The equation :  $x^2 + x = 5$  is of  $\dots\dots\dots$  degree.   
(fourth or third or second or first)
- (4)  $-9^3 \dots\dots\dots (-3)^2$  ( $<$  or  $=$  or  $>$  or  $\geq$ )
- (5)  $(-6)^2 \dots\dots\dots -12$  ( $>$  or  $=$  or  $<$  or  $\leq$ )
- (6) A circle , its diameter length is 20 cm. , then its area =  $\dots\dots\dots \text{cm}^2$  ( $\pi = 3.14$ )  
(31.4 or 314 or 23.14 or 43.14)
- (7) If  $3y = 9$  , then  $y + 5 = \dots\dots\dots$  (11 or 32 or 8 or 14)

### MODEL (7)

- ( 1 ) The surface area of the circle = .....  
(  $\pi$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$  )
- ( 2 ) The solution set of the equation :  $3x = -6$  in  $\mathbb{N}$  is .....  
(  $\{-3\}$  or  $\{3\}$  or  $\{2\}$  or  $\emptyset$  )
- ( 3 ) If  $x + 5 \geq 2$  , then  $x \geq$  .....  
( 3 or -3 or 7 or -4 )
- ( 4 )  $27 + (-3)^2 =$  .....  
( -9 or 24 or 3 or 81 )
- ( 5 )  $(-5)^2 \times (2)^2 =$  .....  
(  $10^0$  or 10 or  $10^2$  or  $10^3$  )
- ( 6 ) The sum of edge lengths of a cube is 24 cm. , then T.S.A. = .....  $\text{cm}^2$ .  
( 16 or 36 or 4 or 24 )
- ( 7 ) The additive inverse of  $(-5)^2$  is ..... ( 25 or 5 or -5 or -25 )

### MODEL (8)

- ( 1 )  $9^2$  .....  $(-3)^4$  (  $>$  or  $<$  or  $=$  or  $\geq$  )
- ( 2 ) If  $0 \in \{5, x-2\}$  , then  $x =$  ..... ( zero or -5 or 2 or -2 )
- ( 3 )  $(-1)^3 - (1)^2 =$  ..... ( -2 or 1 or 0 or 2 )
- ( 4 ) The circumference of the circle = .....  
(  $\pi r$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$  )
- ( 5 )  $3^5 \div 3^2 =$  .....  
(  $3^7$  or  $3^{10}$  or  $3^3$  or  $3^2$  )
- ( 6 ) The number which satisfies the inequality  $x - 2 > 3$  is .....  
( 3 or 4 or 5 or 6 )
- ( 7 ) The equation :  $2x - 1 = 15$  is of the ..... degree.  
( first or second or third or fourth )

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Choose the correct answer :

- ( 1 ) If  $x + 2 = -3$  , then  $x = \dots\dots\dots$  ( - 1 or 1 or 5 or **-5** )  
( 2 )  $3 - |-3| = \dots\dots\dots$  (**0** or 1 or 3 or 6 )  
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( 144 or 81 or **54** or 96 )  
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( 5 )  $|-5| + 7 = \dots\dots\dots$  ( 2 or zero or 7 or **12** )  
( 6 )  $\{(-1)^{\text{zero}}, (\text{zero})^2\} \dots\dots\dots \mathbb{Z}$  ( $\in$  or  $\notin$  or  **$\subset$**  or  $\not\subset$  )  
( 7 ) The number that satisfies the inequality  $x < -2$  is  $\dots\dots\dots$   
(**-3** or -2 or -1 or 0 )

MODEL (2)

- ( 1 )  $2^6 \times 2^2 \div 2^7 = \dots\dots\dots$  ( $2^8$  or  $2^{12}$  or  $2^5$  or **2** )  
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( 5 ) If  $x + 1 = 2$  , then  $x = \dots\dots\dots$  where  $x \in \mathbb{N}$  ( 3 or 1 or - 1 or - 3 )

( 6 ) A cuboid with a square base , its lateral area is  $224 \text{ cm}^2$  , its height is 14 cm.  
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( first or second or third or fourth )

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Choose the correct answer :

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- (2) A cube the perimeter of its base is 36 cm. , then its lateral area =  $\dots\dots\dots \text{cm}^2$ .  
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(-1 or zero or 1 or 2)
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( $2^6$  or  $4^6$  or  $3^3$  or  $2^9$ )
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- (4)  $-9^3 \dots\dots\dots (-3)^2$  ( $<$  or  $=$  or  $>$  or  $\geq$ )
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- (6) A circle , its diameter length is 20 cm. , then its area =  $\dots\dots\dots \text{cm}^2$  ( $\pi = 3.14$ )  
(31.4 or 314 or 23.14 or 43.14)
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- (1) The surface area of the circle = .....  
(  $\pi$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$  )
- (2) The solution set of the equation :  $3x = -6$  in  $\mathbb{N}$  is .....  
(  $\{-3\}$  or  $\{3\}$  or  $\{2\}$  or  $\emptyset$  )
- (3) If  $x + 5 \geq 2$ , then  $x \geq$  .....  
( 3 or -3 or 7 or -4 )
- (4)  $27 + (-3)^2 =$  .....  
( -9 or 24 or 3 or 81 )
- (5)  $(-5)^2 \times (2)^2 =$  .....  
(  $10^0$  or 10 or  $10^2$  or  $10^3$  )
- (6) The sum of edge lengths of a cube is 24 cm. , then T.S.A. = .....  $\text{cm}^2$ .  
( 16 or 36 or 4 or 24 )
- (7) The additive inverse of  $(-5)^2$  is .....  
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- (1)  $9^2$  .....  $(-3)^4$  .....  
(  $>$  or  $<$  or  $=$  or  $\geq$  )
- (2) If  $0 \in \{5, x-2\}$ , then  $x =$  .....  
( zero or -5 or 2 or -2 )
- (3)  $(-1)^3 - (1)^2 =$  .....  
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- (4) The circumference of the circle = .....  
(  $\pi r$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$  )
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- (7) The equation :  $2x - 1 = 15$  is of the ..... degree.  
( first or second or third or fourth )



**Choose the correct answer :**

1	If $2x = -6$ , then $x \in \dots\dots\dots$ ( $\mathbb{N}$ or $\emptyset$ or $\mathbb{Z}^+$ or $\mathbb{Z}^-$ )
2	The circumference of the circle = $\dots\dots\dots \times \pi$ ( $r$ or $2r$ or $r^2$ or $r+2$ )
3	The number which satisfies the inequality : $x > -2$ is $\dots\dots\dots$ ( $-1$ or $-2$ or $-3$ or $-4$ )
4	$2^5 \times 2^2 = \dots\dots\dots$ ( $2^7$ or $4^7$ or $1$ )
5	The surface area of a circle = $\pi \times \dots\dots\dots$ ( $r$ or $r^2$ or $2r$ )
6	$(-19)^0 + (19)^0 = \dots\dots\dots$ ( $-1$ or zero or $1$ or $2$ )
7	A cube the perimeter of its base is 36 cm. , then its lateral area = $\dots\dots\dots \text{cm}^2$ ( $9$ or $324$ or $36$ or $486$ )
8	The number which satisfies the inequality : $x > -2$ is $\dots\dots\dots$ ( $1$ or $-4$ or $-3$ or $-2$ )
9	A circle , its radius length is 7 cm. , then its area = $\dots\dots\dots \text{cm}^2$ ( $\pi = \frac{22}{7}$ ) ( $145$ or $154$ or $22$ or $7$ )

10	$(-1)^{104} + (-1)^{103} = \dots\dots\dots$	( 0 or 2 or -1 or 1 )
11	$3^2 + 3^2 + 3^2 = \dots\dots\dots$	( $2^6$ or $4^6$ or $3^3$ or $2^9$ )
12	The equation : $2^6 + x^5 = 100$ is of the $\dots\dots\dots$ degree.	( $11^{\text{th}}$ or $5^{\text{th}}$ or $6^{\text{th}}$ or $1^{\text{st}}$ )
13	The area of the circle whose radius length is $2\pi$ cm. is $\dots\dots\dots$ $\text{cm}^2$	( $4\pi$ or $2\pi^2$ or 12.56 or $4\pi^3$ )
14	The integer which satisfies the inequality : $y < -3$ is $\dots\dots\dots$	( -2 or -8 or 0 or 1 )
15	If $3x = -9$ , then $-5x = \dots\dots\dots$	( 15 or 9 or -15 or $- -15 $ )
16	The L.S.A. of the cuboid whose dimensions are 3 cm. , 4 cm. and 0.6 dm. is $\dots\dots\dots$	( $72\text{ cm}^2$ or $8.4\text{ dm}^2$ or $84\text{ dm}^2$ or $84\text{ cm}^2$ )
17	$-9^3 \dots\dots\dots (-3)^2$	( < or = or > or $\geq$ )
18	$(-1)^{12} + (-1)^{13} = \dots\dots\dots$	( 0 or 1 or 2 or -1 )
19	$5 \times 5^2 = \dots\dots\dots$	( $25^2$ or $25^3$ or $5^2$ or $5^3$ )
20	If $x - 5 = 7$ , $x \in \mathbb{N}$ , then $x = \dots\dots\dots$	( 2 or 12 or -12 or 35 )
21	A circle , its circumference is 44 cm. , then the length of its radius = $\dots\dots\dots$ cm. ( $\pi = \frac{22}{7}$ )	( 22 or 11 or 7 or 14 )

22	If $2x = 6$ , then $4x = \dots\dots\dots$	( 3 or 6 or 12 or 16 )
23	If $x + 2 < 2$ , then $x \in \dots\dots\dots$	( $\mathbb{N}$ or $\emptyset$ or $\mathbb{Z}^+$ or $\mathbb{Z}^-$ )
24	The number which satisfies the inequality : $x + 4 > 2$ is $\dots\dots\dots$	( -1 or -2 or -3 or -4 )
25	A cube of edge length 6 cm. , then its total area = $\dots\dots\dots$ cm <sup>2</sup>	( 36 or 72 or 144 or 216 )
26	The lateral area of the cube = Area of one face $\times \dots\dots\dots$	( 2 or 4 or 6 or height )
27	$(-1)^2 \times 2^3 = \dots\dots\dots$	( $2^5$ or 8 or -8 or $-2^5$ )
28	If $2x = 10$ , then $x + 2 = \dots\dots\dots$	( 7 or 3 or 5 or 6 )
29	The equation : $x^2 + 3 = 4$ is of $\dots\dots\dots$ degree.	( 1 <sup>st</sup> or 3 <sup>rd</sup> or 2 <sup>nd</sup> or 4 <sup>th</sup> )
30	The lateral area of a cube whose side length is 3 cm. = $\dots\dots\dots$ cm <sup>2</sup>	( 27 or 48 or 36 or 54 )
31	The number which satisfies the inequality : $x - 2 > 3$ is $\dots\dots\dots$	( 3 or 5 or 4 or 6 )
32	$2^6 \times 2^4 = \dots\dots\dots$	( $2^2$ or $2^{12}$ or $2^{10}$ or $2^{24}$ )

33	All the following numbers satisfy the inequality : $x > -3$ except ..... ( zero <b>or</b> -1 <b>or</b> -2 <b>or</b> -3 )
34	The equation : $x + 2 = 10$ is of the ..... degree. ( first <b>or</b> second <b>or</b> third <b>or</b> fourth )
35	$(3)^7 \div (3)^4 = \dots\dots\dots$ ( $(3)^3$ <b>or</b> $(3)^5$ <b>or</b> $(3)^{11}$ <b>or</b> $(3)^2$ )
36	If $a < b$ , then : $-3a \dots\dots\dots -3b$ ( <b>&lt;</b> <b>or</b> <b>&gt;</b> <b>or</b> <b>=</b> <b>or</b> <b>∈</b> )
37	The solution set of the equation : $3x = -6$ in $\mathbb{N}$ is ..... ( $\{-3\}$ <b>or</b> $\{3\}$ <b>or</b> $\{2\}$ <b>or</b> $\emptyset$ )
38	If $x + 5 \geq 2$ , then $x \geq \dots\dots\dots$ ( 3 <b>or</b> -3 <b>or</b> 7 <b>or</b> -4 )
39	$(-5)^2 \times (2)^2 = \dots\dots\dots$ ( $10^0$ <b>or</b> 10 <b>or</b> $10^2$ <b>or</b> $10^3$ )
40	$27 \div (-3)^2 = \dots\dots\dots$ ( -9 <b>or</b> 24 <b>or</b> 3 <b>or</b> 81 )
41	The equation : $x^2 + x = 5$ is of ..... degree. ( fourth <b>or</b> third <b>or</b> second <b>or</b> first )
42	$(-6)^2 \dots\dots\dots -12$ ( <b>&gt;</b> <b>or</b> <b>=</b> <b>or</b> <b>&lt;</b> <b>or</b> <b>≤</b> )
43	A circle , its diameter length is 20 cm. , then its area = ..... $\text{cm}^2$ ( $\pi = 3.14$ ) ( 31.4 <b>or</b> 314 <b>or</b> 23.14 <b>or</b> 43.14 )
44	The sum of edge lengths of a cube is 24 cm. , then T.S.A. = ..... $\text{cm}^2$ ( 16 <b>or</b> 36 <b>or</b> 4 <b>or</b> 24 )

45	If $3y = 9$ , then $y + 5 = \dots\dots\dots$	( 11 or 32 or 8 or 14 )
46	If $x + 6 = 5$ , then the solution set in $\mathbb{N}$ is $\dots\dots\dots$	( $\{-1\}$ or $\{1\}$ or $\emptyset$ or $\{0\}$ )
47	If $x + 2 =  -5 $ , then $x = \dots\dots\dots$	( 3 or -3 or 7 or 4 )
48	The total area of a cube = area of one face $\times \dots\dots\dots$	( 4 or 5 or 6 or 8 )
48	$(-1)^8 + (-1)^9 + (-1)^{\text{zero}} = \dots\dots\dots$	( zero or -1 or 1 or 2 )
49	The solution set of the inequality : $2 \leq x < 3$ where $x \in \mathbb{N}$ is $\dots\dots\dots$	( $\{\text{zero}\}$ or $\{2\}$ or $\{3\}$ or $\{2, 3\}$ )
50	The lateral area of a cuboid of length 3 cm. , width 2 cm. and height 4 cm. = $\dots\dots\dots \text{cm}^2$	( 20 or 24 or 40 or 52 )
51	If $a < b$ , then $-3a \dots\dots\dots -3b$	( $<$ or $>$ or $=$ or $\leq$ )
52	The ratio between the lateral surface area and the total surface area of a cube = $\dots\dots\dots$	( 2 : 3 or 3 : 4 or 6 : 4 or 1 : 2 )
53	The total area of a cube is $324 \text{ cm}^2$ , then the area of face = $\dots\dots\dots$	( $54 \text{ cm}^2$ or $81 \text{ cm}^2$ or $54 \text{ cm.}$ or $81 \text{ cm.}$ )
54	If $-3x < 30$ , then $x \dots\dots\dots (-10)$	( $>$ or $<$ or $=$ or $\leq$ )
55	The equation : $4x^3 - x = 29$ is of $\dots\dots\dots$ degree.	( fourth or third or second or first )

A circle , its radius length is 7 cm. , then its area = .....  $\text{cm}^2$  ( $\pi = \frac{22}{7}$ )  
( 145 or 154 or 22 or 7 )

With my best wishes

Sowad Elmostafa

## April revision

1.	$\frac{1}{3}, \frac{2}{3}, 1, \frac{4}{3}, \dots, \dots$ (in the same pattern)
2.	The circumference of the circle = $\dots \times \pi$ ( r or 2 r or $r^2$ or $r+2$ )
3.	$\frac{2^3 \times 2^5}{2^2} = \dots$
4.	$(-1)^3 + 2 = \dots$ ( 3 or -1 or -3 or 1 )
5.	The surface area of a circle = $\pi \times \dots$ ( r or $r^2$ or 2 r )
6.	$(-5)^2 \times (2)^2 = \dots$ ( $10^0$ or 10 or $(10)^2$ or $(10)^3$ )
7.	The sum of edge lengths of a cube is 84 cm. , then its lateral area equals $\dots \text{ cm}^2$
8.	$2^5 \times 2^2 = \dots$ ( $2^7$ or $4^7$ or 1 )
9.	The surface area of the circle = $\dots$ ( $\pi r$ or $\pi r^2$ or $2\pi r$ or $2\pi r^2$ )
10.	If the lateral area of a cube is $36 \text{ cm}^2$ , then its total area = $\dots \text{ cm}^2$ ( 144 or 81 or 54 or 96 )
11.	$5^2 \times 2^2 = \dots$ ( $5^4$ or $2^4$ or $10^2$ or $10^4$ )
12.	1 , 4 , 7 , 10 , $\dots, \dots$ (in the same pattern)
13.	A cuboid its lateral area $120 \text{ cm}^2$ and the perimeter of its base 20 cm. , then its height = $\dots \text{ cm}$ .
14.	$\frac{8^3 \times 8^4}{8^7} = \dots$
15.	$(-1)^8 + (-1)^9 = \dots$ ( zero or -1 or 1 or 2 )
16.	$\{(-1)^{\text{zero}}, (\text{zero})^2\} \dots \mathbb{Z}$ ( $\in$ or $\notin$ or $\subset$ or $\not\subset$ )
17.	$(5)^{\text{zero}} = \dots$ ( zero or 5 or 1 or 50 )
18.	The sum of edge lengths of a cube is 96 cm. , then its lateral area = $\dots \text{ cm}^2$
19.	25 , 21 , 17 , 13 , $\dots, \dots$ (in the same pattern)

20.	$(-1)^2 - 1 = \dots\dots\dots$	
21.	$3^5 \div 3^2 = \dots\dots\dots$	( $3^7$ or $3^{10}$ or $3^3$ or $3^2$ )
22.	$9^2 \dots\dots\dots (-3)^4$	( $>$ or $<$ or $=$ or $\geq$ )
23.	A circle is of diameter length 10 cm. , then its area = $\dots\dots\dots$ cm <sup>2</sup>	( 50 or 100 or 78.5 or 25 )
24.	$\frac{1}{3}$ , $\frac{1}{6}$ , $\frac{1}{12}$ , $\frac{1}{24}$ , $\dots\dots\dots$ , $\dots\dots\dots$ (in the same pattern)	
25.	$(-100)^{\text{zero}} = \dots\dots\dots$	( - 100 or 100 or zero or 1 )
26.	The lateral area of the cube = area of one face $\times \dots\dots\dots$	( 6 or 5 or 4 or 3 )
27.	$9^7 \div 9^5 = \dots\dots\dots$	( $9^{-12}$ or $9^2$ or $9^{\text{zero}}$ or $9^{35}$ )
28.	The next number in the pattern : 2 , 3 , 5 , 8 , 13 is $\dots\dots\dots$	( 18 or 19 or 20 or 21 )
29.	A circle of diameter length 8 cm. , then its area = $\dots\dots\dots$ $\pi$ cm <sup>2</sup>	( 4 or 8 or 16 or 64 )
30.	$(-19)^0 + (19)^0 = \dots\dots\dots$	( - 1 or zero or 1 or 2 )
31.	The height of the cuboid whose lateral area is 160 cm <sup>2</sup> and the dimensions of its base are 3 cm. and 7 cm. equals $\dots\dots\dots$ cm.	( 6 or 8 or 10 or 16 )
32.	A cube the perimeter of its base is 36 cm. , then its lateral area = $\dots\dots\dots$ cm <sup>2</sup>	( 9 or 324 or 36 or 486 )
33.	$(-1)^{104} + (-1)^{103} = \dots\dots\dots$	( 0 or 2 or - 1 or 1 )
34.	$3^2 + 3^2 + 3^2 = \dots\dots\dots$	( $2^6$ or $4^6$ or $3^3$ or $2^9$ )
35.	The lateral area of the cuboid whose length is 6 cm. and width is 4 cm. and its height is 5 cm. equals $\dots\dots\dots$	
36.	A circle of diameter length 14 cm. , then its area = $\dots\dots\dots$ cm <sup>2</sup> $\left( \pi = \frac{22}{7} \right)$	
37.	If $a = 3$ , $b = -2$ , then $3ab = \dots\dots\dots$	
38.	$-9^3 \dots\dots\dots (-3)^2$	( $<$ or $=$ or $>$ or $\geq$ )

39.	The L.S.A. of the cuboid whose dimensions are 3 cm. , 4 cm. and 0.6 dm. is ..... ( 72 cm <sup>2</sup> or 8.4 dm <sup>2</sup> or 84 dm <sup>2</sup> or 84 cm <sup>2</sup> )
40.	Half the T.S.A. of a cube whose sum of its edge lengths is 36 cm. is ..... cm <sup>2</sup> ( 108 or 27 or 54 or 18 )
41.	The ratio between the T.S.A. and L.S.A. of the cube is .....
42.	$(-1)^{12} + (-1)^{13} = \dots\dots\dots$ ( 0 or 1 or 2 or -1 )
43.	$5 \times 5^2 = \dots\dots\dots$ ( 25 <sup>2</sup> or 25 <sup>3</sup> or 5 <sup>2</sup> or 5 <sup>3</sup> )
44.	A circle , its circumference is 44 cm. , then the length of its radius = ..... cm. $(\pi = \frac{22}{7})$ ( 22 or 11 or 7 or 14 )
45.	A cube of edge length 6 cm. , then its lateral area = ..... cm <sup>2</sup> ( 216 or 180 or 144 or 108 )
46.	The lateral area of the cube = Area of one face $\times$ ..... ( 2 or 4 or 6 or height )
47.	$\frac{(-5)^3 \times (-5)^2}{(-5)^4}$
48.	$(-1)^2 \times 2^3 = \dots\dots\dots$ ( 2 <sup>5</sup> or 8 or -8 or -2 <sup>5</sup> )
49.	The lateral area of a cube whose side length is 3 cm. = ..... cm <sup>2</sup> ( 27 or 48 or 36 or 54 )
50.	$2^6 \times 2^4 = \dots\dots\dots$ ( 2 <sup>2</sup> or 2 <sup>12</sup> or 2 <sup>10</sup> or 2 <sup>24</sup> )
51.	$3^7 \div 3^7 = \dots\dots\dots$
52.	A circle , its diameter length is 14 cm. , then its area = ..... cm <sup>2</sup> $(\pi = \frac{22}{7})$
53.	A cuboid whose length is 9 cm. , width is 7 cm. and its height is 10 cm. , then its lateral area = .....
54.	If the radius length of a circle is 10 cm. , then its surface area = ..... cm <sup>2</sup> (Given that : $\pi = 3.14$ ) ( 3.14 or 31.4 or 314 or 3140 )
55.	If the edge length of a cube is 6 cm. , then its total area = ..... cm <sup>2</sup> ( 24 or 36 or 144 or 216 )
56.	$(3)^7 \div (3)^4 = \dots\dots\dots$ ( (3) <sup>3</sup> or (3) <sup>5</sup> or (3) <sup>11</sup> or (3) <sup>2</sup> )
57.	If the area of one face of a cube equal 9 cm <sup>2</sup> , then its total area = ..... cm <sup>2</sup>

58.	The perimeter of one face of a cube is 12 cm. , then its total area = ..... cm <sup>2</sup>
59.	$(-5)^2 \times (2)^2 = \dots\dots\dots$ ( $10^0$ or 10 or $10^2$ or $10^3$ )
60.	$27 \div (-3)^2 = \dots\dots\dots$ ( -9 or 24 or 3 or 81 )
61.	$(-6)^2 \dots\dots\dots - 12$ ( > or = or < or $\leq$ )
62.	A circle , its diameter length is 20 cm. , then its area = ..... cm <sup>2</sup> ( $\pi = 3.14$ ) ( 31.4 or 314 or 23.14 or 43.14 )
63.	$2 - (-3)^0 = \dots\dots\dots$ ( 5 or 3 or 1 or 2 )
64.	The sum of edge lengths of a cube is 24 cm. , then T.S.A. = ..... cm <sup>2</sup> ( 16 or 36 or 4 or 24 )
65.	The additive inverse of $(-3)^2$ is ..... ( 9 or 3 or -3 or -9 )
66.	If the total area of the cube = 54 cm <sup>2</sup> , then the area of one face = ..... cm <sup>2</sup> ( 4 or 5 or 8 or 9 )
67.	The total area of the cube = Area of one face $\times$ ..... ( 2 or 4 or 6 or 8 )
68.	$2^5 \times 2^2 = \dots\dots\dots$ ( $2^7$ or $2^4$ or $2^3$ or 1 )
69.	A circle , its radius length is 4 cm. , then its area = ..... $\pi$ cm <sup>2</sup> ( 4 or 8 or 12 or 16 )
70.	$(-1)^8 + (-1)^9 + (-1)^{\text{zero}} = \dots\dots\dots$ ( zero or -1 or 1 or 2 )
71.	The height of a cuboid whose lateral area is 160 cm <sup>2</sup> and dimensions of its base are 7 cm. and 3 cm. = ..... cm.
72.	The lateral area of a cuboid of length 3 cm. , width 2 cm. and height 4 cm. = ..... cm <sup>2</sup> ( 20 or 24 or 40 or 52 )
73.	A cube of edge length 6 cm. , then its total area = ..... cm <sup>2</sup> ( 36 or 72 or 144 or 216 )
74.	The perimeter of the base of the cuboid is 10 cm. , its height is 4 cm. , then its lateral area = ..... cm <sup>2</sup>
75.	The total surface area of a cuboid = 100 cm <sup>2</sup> and area of one base 20 cm <sup>2</sup> , then its lateral surface area = ..... cm <sup>2</sup> ( 40 or 60 or 80 or 140 )
76.	The lateral area of a cuboid of length 3 cm. , width 2 cm. and height 4 cm. = ..... cm <sup>2</sup>

## April revision

1.  $\frac{1}{3}, \frac{2}{3}, 1, \frac{4}{3}, \dots, \frac{5}{3}, \dots, 2$  (in the same pattern)
2. The circumference of the circle = .....  $\times \pi$   
(r or  $2r$  or  $r^2$  or  $r+2$ )
3.  $\frac{2^3 \times 2^5}{2^2} = \dots 2^6 \dots$
4.  $(-1)^3 + 2 = \dots$  (3 or -1 or -3 or 1)
5. The surface area of a circle =  $\pi \times \dots$  (r or  $r^2$  or  $2r$ )
6.  $(-5)^2 \times (2)^2 = \dots$  ( $10^0$  or 10 or  $(10)^2$  or  $(10)^3$ )
7. The sum of edge lengths of a cube is 84 cm. , then its lateral area equals  $196$   $\text{cm}^2$
8.  $2^5 \times 2^2 = \dots$  ( $2^7$  or  $4^7$  or 1)
9. The surface area of the circle = .....  
( $\pi r$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$ )
10. If the lateral area of a cube is  $36 \text{ cm}^2$  , then its total area = .....  $\text{cm}^2$   
(144 or 81 or 54 or 96)
11.  $5^2 \times 2^2 = \dots$  ( $5^4$  or  $2^4$  or  $10^2$  or  $10^4$ )
12. 1 , 4 , 7 , 10 , 13 , 16 (in the same pattern)
13. A cuboid its lateral area  $120 \text{ cm}^2$  and the perimeter of its base 20 cm. , then its height = 6 cm.
14.  $\frac{8^3 \times 8^4}{8^7} = \dots 1 \dots$
15.  $(-1)^8 + (-1)^9 = \dots$  (zero or -1 or 1 or 2)
16.  $\{(-1)^{\text{zero}}, (\text{zero})^2\} \dots \mathbb{Z}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )
17.  $(5)^{\text{zero}} = \dots$  (zero or 5 or 1 or 50)
18. The sum of edge lengths of a cube is 96 cm. , then its lateral area =  $256$   $\text{cm}^2$
19. 25 , 21 , 17 , 13 , 9 , 5 (in the same pattern)

20.	$(-1)^2 - 1 = \dots\dots 0 \dots\dots$	
21.	$3^5 \div 3^2 = \dots\dots\dots$	( $3^7$ or $3^{10}$ or $3^3$ or $3^2$ )
22.	$9^2 \dots\dots\dots (-3)^4$	( $>$ or $<$ or $=$ or $\geq$ )
23.	A circle is of diameter length 10 cm. , then its area = $\dots\dots\dots$ cm <sup>2</sup>	( 50 or 100 or 78.5 or 25 )
24.	$\frac{1}{3}, \frac{1}{6}, \frac{1}{12}, \frac{1}{24}, \dots\dots \frac{1}{48}, \dots\dots \frac{1}{96} \dots\dots$ (in the same pattern)	
25.	$(-100)^{\text{zero}} = \dots\dots\dots$	( $-100$ or $100$ or zero or 1 )
26.	The lateral area of the cube = area of one face $\times \dots\dots\dots$	( 6 or 5 or 4 or 3 )
27.	$9^7 \div 9^5 = \dots\dots\dots$	( $9^{-12}$ or $9^2$ or $9^{\text{zero}}$ or $9^{35}$ )
28.	The next number in the pattern : 2 , 3 , 5 , 8 , 13 is $\dots\dots\dots$	( 18 or 19 or 20 or 21 )
29.	A circle of diameter length 8 cm. , then its area = $\dots\dots\dots$ $\pi$ cm <sup>2</sup>	( 4 or 8 or 16 or 64 )
30.	$(-19)^0 + (19)^0 = \dots\dots\dots$	( $-1$ or zero or 1 or 2 )
31.	The height of the cuboid whose lateral area is 160 cm <sup>2</sup> and the dimensions of its base are 3 cm. and 7 cm. equals $\dots\dots\dots$ cm.	( 6 or 8 or 10 or 16 )
32.	A cube the perimeter of its base is 36 cm. , then its lateral area = $\dots\dots\dots$ cm <sup>2</sup>	( 9 or 324 or 36 or 486 )
33.	$(-1)^{104} + (-1)^{103} = \dots\dots\dots$	( 0 or 2 or $-1$ or 1 )
34.	$3^2 + 3^2 + 3^2 = \dots\dots\dots$	( $2^6$ or $4^6$ or $3^3$ or $2^9$ )
35.	The lateral area of the cuboid whose length is 6 cm. and width is 4 cm. and its height is 5 cm. equals $\dots\dots 100 \text{ cm}^2$	
36.	A circle of diameter length 14 cm. , then its area = $\dots\dots 154 \dots\dots$ cm <sup>2</sup> ( $\pi = \frac{22}{7}$ )	
37.	If $a = 3$ , $b = -2$ , then $3ab = \dots\dots -18 \dots\dots$	
38.	$-9^3 \dots\dots\dots (-3)^2$	( $<$ or $=$ or $>$ or $\geq$ )

39.	The L.S.A. of the cuboid whose dimensions are 3 cm. , 4 cm. and 0.6 dm. is ..... ( 72 cm <sup>2</sup> or 8.4 dm <sup>2</sup> or 84 dm <sup>2</sup> or <b>84 cm<sup>2</sup></b> )
40.	Half the T.S.A. of a cube whose sum of its edge lengths is 36 cm. is ..... cm <sup>2</sup> ( 108 or <b>27</b> or 54 or 18 )
41.	The ratio between the T.S.A. and L.S.A. of the cube is .... <b>3:2</b>
42.	$(-1)^{12} + (-1)^{13} = \dots\dots\dots$ ( <b>0</b> or 1 or 2 or -1 )
43.	$5 \times 5^2 = \dots\dots\dots$ ( 25 <sup>2</sup> or 25 <sup>3</sup> or 5 <sup>2</sup> or <b>5<sup>3</sup></b> )
44.	A circle , its circumference is 44 cm. , then the length of its radius = ..... cm. ( $\pi = \frac{22}{7}$ ) ( 22 or 11 or <b>7</b> or 14 )
45.	A cube of edge length 6 cm. , then its lateral area = ..... cm <sup>2</sup> ( 216 or 180 or <b>144</b> or 108 )
46.	The lateral area of the cube = Area of one face $\times$ ..... ( 2 or <b>4</b> or 6 or height )
47.	$\frac{(-5)^3 \times (-5)^2}{(-5)^4} = \dots\dots\dots$ <b>-5</b>
48.	$(-1)^2 \times 2^3 = \dots\dots\dots$ ( 2 <sup>5</sup> or <b>8</b> or -8 or -2 <sup>5</sup> )
49.	The lateral area of a cube whose side length is 3 cm. = ..... cm <sup>2</sup> ( 27 or 48 or <b>36</b> or 54 )
50.	$2^6 \times 2^4 = \dots\dots\dots$ ( 2 <sup>2</sup> or 2 <sup>12</sup> or <b>2<sup>10</sup></b> or 2 <sup>24</sup> )
51.	$3^7 \div 3^7 = \dots\dots\dots$ <b>1</b>
52.	A circle , its diameter length is 14 cm. , then its area = <b>154</b> cm <sup>2</sup> ( $\pi = \frac{22}{7}$ )
53.	A cuboid whose length is 9 cm. , width is 7 cm. and its height is 10 cm. , then its lateral area = .... <b>320</b>
54.	If the radius length of a circle is 10 cm. , then its surface area = ..... cm <sup>2</sup> (Given that : $\pi = 3.14$ ) ( 3.14 or 31.4 or <b>314</b> or 3140 )
55.	If the edge length of a cube is 6 cm. , then its total area = ..... cm <sup>2</sup> ( 24 or 36 or 144 or <b>216</b> )
56.	$(3)^7 \div (3)^4 = \dots\dots\dots$ ( <b>(3)<sup>3</sup></b> or (3) <sup>5</sup> or (3) <sup>11</sup> or (3) <sup>2</sup> )
57.	If the area of one face of a cube equal 9 cm <sup>2</sup> , then its total area = .... <b>54</b> ..... cm <sup>2</sup>

58.	The perimeter of one face of a cube is 12 cm. , then its total area = ..... <b>54</b> ..... cm <sup>2</sup>
59.	$(-5)^2 \times (2)^2 = \dots\dots\dots$ ( $10^0$ or 10 or <b><math>10^2</math></b> or $10^3$ )
60.	$27 \div (-3)^2 = \dots\dots\dots$ ( -9 or 24 or <b>3</b> or 81 )
61.	$(-6)^2 \dots\dots\dots - 12$ ( <b>&gt;</b> or = or < or $\leq$ )
62.	A circle , its diameter length is 20 cm. , then its area = ..... cm <sup>2</sup> ( $\pi = 3.14$ ) ( 31.4 or <b>314</b> or 23.14 or 43.14 )
63.	$2 - (-3)^0 = \dots\dots\dots$ ( 5 or 3 or <b>1</b> or 2 )
64.	The sum of edge lengths of a cube is 24 cm. , then T.S.A. = ..... cm <sup>2</sup> ( 16 or 36 or 4 or <b>24</b> )
65.	The additive inverse of $(-3)^2$ is ..... ( 9 or 3 or -3 or <b>-9</b> )
66.	If the total area of the cube = 54 cm <sup>2</sup> , then the area of one face = ..... cm <sup>2</sup> ( 4 or 5 or 8 or <b>9</b> )
67.	The total area of the cube = Area of one face $\times$ ..... ( 2 or 4 or <b>6</b> or 8 )
68.	$2^5 \times 2^2 = \dots\dots\dots$ ( <b><math>2^7</math></b> or $2^4$ or $2^3$ or 1 )
69.	A circle , its radius length is 4 cm. , then its area = ..... $\pi$ cm <sup>2</sup> ( 4 or 8 or 12 or <b>16</b> )
70.	$(-1)^8 + (-1)^9 + (-1)^{\text{zero}} = \dots\dots\dots$ ( zero or -1 or <b>1</b> or 2 )
71.	The height of a cuboid whose lateral area is 160 cm <sup>2</sup> and dimensions of its base are 7 cm. and 3 cm. = ..... <b>8</b> ..... cm.
72.	The lateral area of a cuboid of length 3 cm. , width 2 cm. and height 4 cm. = ..... cm <sup>2</sup> ( 20 or 24 or <b>40</b> or 52 )
73.	A cube of edge length 6 cm. , then its total area = ..... cm <sup>2</sup> ( 36 or 72 or 144 or <b>216</b> )
74.	The perimeter of the base of the cuboid is 10 cm. , its height is 4 cm. , then its lateral area = ..... <b>40</b> ..... cm <sup>2</sup>
75.	The total surface area of a cuboid = 100 cm <sup>2</sup> and area of one base 20 cm <sup>2</sup> , then its lateral surface area = ..... cm <sup>2</sup> ( 40 or <b>60</b> or 80 or 140 )
76.	The lateral area of a cuboid of length 3 cm. , width 2 cm. and height 4 cm. = ..... <b>40</b> ..... cm <sup>2</sup>



## Remember that

- $a^n \times a^m = a^{n+m}$  ,  $a \in \mathbb{Z}$  ,  $a \neq 0$
- $a^n \div a^m = a^{n-m}$  ,  $a \in \mathbb{Z}$  ,  $a \neq 0$  ,  $n > m$
- $a^0 = 1$  ,  $a \neq 0$

• **The equation :** is a mathematical sentence which includes one variable (unknown) (symbol) or more and **equality** relation between two sides.

• **The inequality:** is a mathematical sentence which includes one variable (unknown) (symbol) or more and **inequality** relation between two sides.

• **Solving the equation:** is finding the value of unknown that satisfies the equation.

• If we multiply or divide each side of an inequality by a negative number we must reverse inequality relation.

•  $x - 2 = 5$  is an equation of the **first** degree.

•  $x^2 + 3 = 7$  is an equation of the **second** degree.

•  $x^3 + 1 = 9$  is an equation of the **third** degree.

• The **circumference** of the circle = diameter length  $\times \pi$

• The **circumference** of the circle =  $2 \times$  radius length  $\times \pi$

$$C = d \times \pi$$

$$C = 2 \times r \times \pi$$

$$\pi = \frac{22}{7} = 3.14$$

$$d = C \div \pi$$

$$r = C \div 2 \pi$$

$$2 \pi = \frac{44}{7} = 6.28$$



- The **diameter** length of the circle = radius length  $\times 2$
- The **radius** length of the circle = diameter length  $\div 2$
- The **area** of the circle =  $\pi r^2$

$$d = r \times 2$$

$$r = d \div 2$$

$$A = \pi r^2$$

- The **perimeter** of one face of a cube = edge length  $\times 4$

$$P = e.l \times 4$$

- The **area** of one face of a cube = edge length  $\times$  itself

$$A = e.l \times e.l$$

- The **lateral** area of a cube = area of one face  $\times 4$

$$L.S.A = e.l \times e.l \times 4$$

- The **total** area of a cube = area of one face  $\times 6$

$$T.S.A = e.l \times e.l \times 6$$

- The area of one face a cube =  $L.S.A \div 4$

- The area of one face a cube =  $T.S.A \div 6$

- $e.l$  = perimeter of one face  $\div 4$

- $e.l$  = the sum of edge lengths  $\div 12$

- The **volume** of a cube =  $e.l \times e.l \times e.l$

- The ratio between **area** of **one face** a cube and it's **lateral** area =  $1 : 4$

- The ratio between **area** of **one face** a cube and it's **total** area =  $1 : 6$

- The ratio between **lateral** area a cube and it's **total** area =  $2 : 3$



**Mr. Omar EL Saiedy**



- The **lateral** area of a cuboid = perimeter of the base  $\times$  height
- $L.S.A = p.b \times h$       •  $p.b = L.S.A \div h$       •  $h = L.S.A \div p.b$
- The **total** area of a cuboid = The lateral area + 2 (area of the base)
- $T.S.A = L.S.A + 2 (b.a)$
- The **total** area of a cuboid **without a lid** =  $L.S.A + (b.a)$
- The area of one base =  $(T.S.A - L.S.A) \div 2$

### **Cuboid with a rectangular base**

- The perimeter of the base =  $(L + W) \times 2$
- The area of one base =  $L \times W$
- $L.S.A = (L + W) \times 2 \times h$
- $T.S.A = L.S.A + 2 (L \times W)$
- The total area of a cuboid =  $(L \times W + L \times h + W \times h) \times 2$

### **Cuboid with a square base**

- The perimeter of the base =  $S.L \times 4$
- The area of one base =  $S.L \times S.L$
- $L.S.A = S.L \times 4 \times h$
- $T.S.A = L.S.A + 2 (S.L \times S.L)$

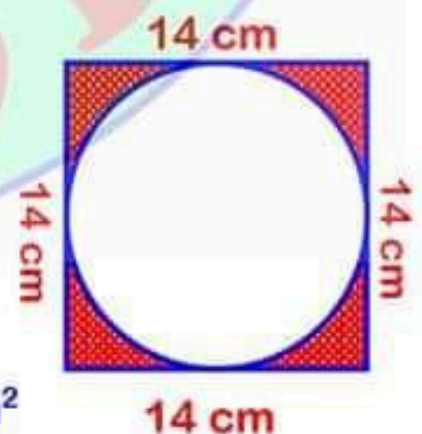
### **© Calculate the area of shaded part:-**

$$(\pi = \frac{22}{7})$$

• Area of the square =  $S.L \times S.L$   
 $= 14 \times 14 = 196 \text{ cm}^2$

• Area of the circle =  $\pi r^2$   
 $= \frac{22}{7} \times 7 \times 7 = 154 \text{ cm}^2$

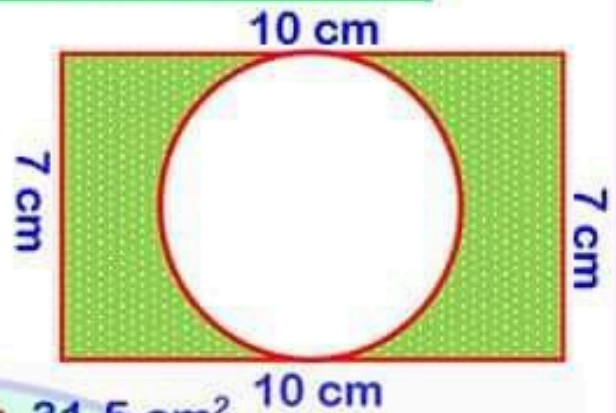
• Area of shaded part =  $196 - 154 = 42 \text{ cm}^2$



• Area of the rectangle =  $L \times W$   
 $= 10 \times 7 = 70 \text{ cm}^2$

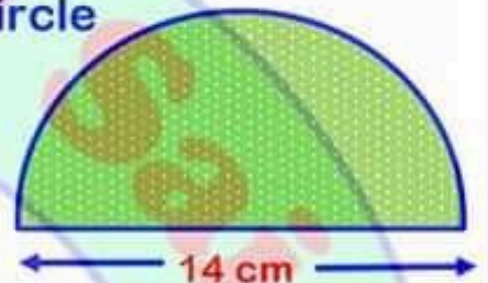
• Area of the circle =  $\pi r^2$   
 $= \frac{22}{7} \times 3.5 \times 3.5 = 38.5 \text{ cm}^2$

• Area of shaded part =  $70 - 38.5 = 31.5 \text{ cm}^2$



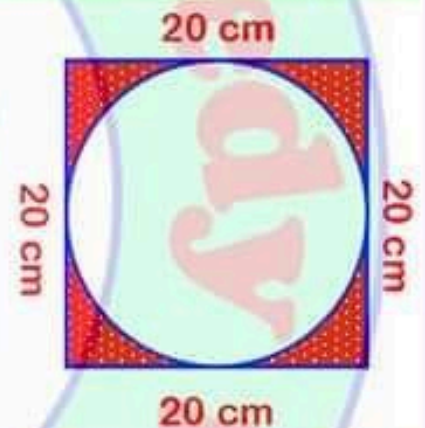
• Area of shaded part =  $\frac{1}{2}$  area of the circle

$= \frac{1}{2} \pi r^2 = \frac{1}{2} \times \frac{22}{7} \times 7 \times 7 = 77 \text{ cm}^2$



In the opposite figure :- A square of side length 20 cm, then find the area of shaded part in  $\text{cm}^2$ . ( $\pi = 3.14$ )

• Area of the square =  $S.L \times S.L = 20 \times 20 = 400 \text{ cm}^2$   
 • Area of the circle =  $\pi r^2 = 3.14 \times 10 \times 10 = 314 \text{ cm}^2$   
 • Area of shaded part =  $400 - 314 = 86 \text{ cm}^2$



In the opposite figure :- A rectangle of length 10 cm, its width 7 cm

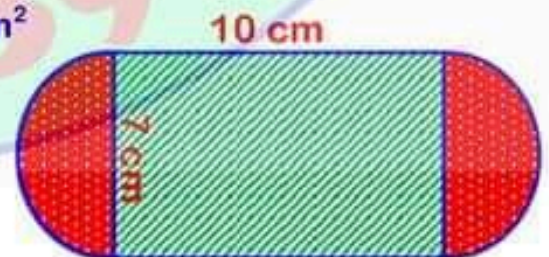
And two semicircles. Find the area of the figure in  $\text{cm}^2$ . ( $\pi = \frac{22}{7}$ )

• Area of the rectangle =  $L \times W = 10 \times 7 = 70 \text{ cm}^2$

• Area of the circle =  $\pi r^2$

$= \frac{22}{7} \times 3.5 \times 3.5 = 38.5 \text{ cm}^2$

• Area of shaded part =  $70 + 38.5 = 108.5 \text{ cm}^2$



**Mr. Omar EL Saiedy**

Choose the correct answer

- (1)  $(-1)^8 + (-1)^9 = \dots\dots\dots$  ( zero or - 1 or 1 or 2 )
- (2)  $(-1)^8 - (-1)^9 = \dots\dots\dots$  ( zero or - 1 or 1 or 2 )
- (3) If F is an **odd** number, then the **even** number from the following is.....  
(  $F^2$  or  $F^2+F$  or  $2F+1$  or  $F^3$  )
- (4) If  $0 \in \{ 5, x-3 \}$ , then  $x = \dots\dots\dots$  ( zero or - 5 or 3 or - 3 )
- (5)  $(-5)^{\text{zero}} + (5)^{\text{zero}} = \dots\dots\dots$  ( zero or - 1 or 1 or 2 )
- (6) If the age of Ahmed is  $3x$  years, then his age 3 years ago was.....  
(  $x+3$  or  $x-3$  or  $3x-3$  or  $3x+3$  )
- (7) The natural number just **next** to the number  $x+1$  is .....  
(  $x$  or  $x+2$  or  $x+3$  or  $x-1$  )
- (8) The **preceding** integer number to the number  $x-1$  is .....  
(  $x$  or  $x+1$  or  $x+2$  or  $x-2$  )
- (9) The additive inverse of  $(-8)^{\text{zero}}$  is ..... ( 8 or - 8 or 1 or - 1 )
- (10) The additive inverse of  $(-1)^3$  is ..... ( 3 or - 1 or 1 or - 3 )
- (11)  $3^6 \div 3^3 = \dots\dots\dots$  (  $6^3$  or  $3^2$  or 27 or 81 )
- (12)  $3^2 + 3^2 + 3^2 = \dots\dots\dots$  (  $2^3$  or  $3^3$  or  $3^6$  or  $2^6$  )
- (13)  $(-3)^3 + (-3)^2 = \dots\dots\dots$  ( -18 or  $(-3)^5$  or  $(-3)^6$  or 18 )
- (14) The additive inverse of  $(-3)^2$  is ..... ( 9 or 3 or - 9 or - 3 )
- (15) Which of the following represents an **equation** ?  
(  $x-17$  or  $22-7 < 15$  or  $x > -11$  or  $2x+3=7$  )
- (16) If:  $x+2 = |-4|$ , then  $x = \dots\dots\dots$  ( -2 or 2 or - 6 or 6 )
- (17) The set of solution of the equation  $2x-1 = -5$  in  $\mathbb{Z}^-$  is .....  
( { 3 } or { - 3 } or { 2 } or { - 2 } )

Mr. Omar EL Saiedy



- (18) The equation  $x^2 + 3 = 4$  is of the ..... degree.  
( first or second or third or fourth )
- (19) The number which satisfies the inequality  $x - 2 > 3$  is .....  
( 3 or 4 or 5 or 6 )
- (20) All the following numbers satisfy the inequality  $x > -3$  except .....  
( zero or -1 or -2 or -4 )
- (21) If:  $x + 3 = 8$ ,  $x \in \mathbb{Z}^-$ , then solution set is..... (  $\{-3\}$  or  $\{5\}$  or  $\{-5\}$  or  $\emptyset$  )
- (22) The number which if it is add to its double the result will be 9 is.....  
( 2 or 3 or 4 or 5 )
- (23) The set of solution of the equation:  $x + 3 = 5$  in  $\mathbb{Z}$  is .....  
(  $\{-8\}$  or  $\{-2\}$  or  $\{2\}$  or  $\{8\}$  )
- (24) The set of solution of the equation:  $4x = -16$  in  $\mathbb{N}$  is .....  
(  $\emptyset$  or  $\{-4\}$  or  $\{\text{zero}\}$  or  $\{4\}$  )
- (25) The set of solution of the equation:  $2x + 3 = 3$  in  $\mathbb{Z}$  is .....  
(  $\{3\}$  or  $\{-6\}$  or  $\{-3\}$  or  $\{\text{zero}\}$  )
- (26) The set of solution of the inequality:  $2 \leq x < 3$  in  $\mathbb{Z}$  is .....  
(  $\{0\}$  or  $\{2\}$  or  $\{3\}$  or  $\{2, 3\}$  )
- (27) The set of solution of the inequality:  $-1 < x \leq 1$  in  $\mathbb{Z}$  is .....  
(  $\{-1\}$  or  $\{0\}$  or  $\{-1, 1\}$  or  $\{0, 1\}$  )
- (28) If the set of substitution is  $\{1, 2, 3, 4\}$ , then the set of solution of the equation:  $x + 6 = 10$  is .....  
(  $\{1\}$  or  $\{2\}$  or  $\{3\}$  or  $\{4\}$  )
- (29) The set of solution of the inequality:  $-1 < 2x < 1$  in  $\mathbb{Z}$  is .....  
(  $\{-1\}$  or  $\{-2\}$  or  $\{-4\}$  or  $\{0\}$  )
- (30) The greatest integer which satisfies the inequality:  $3 \leq x < 6$  is .....  
( 3 or 4 or 5 or 6 )
- (31) The circumference of the circle = ..... (  $\pi r$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$  )

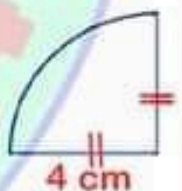
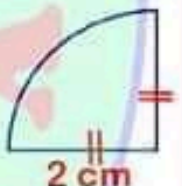
**Mr. Omar EL Saiedy**



- (32) The **area** of the circle's surface = ..... (  $\pi r$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$  )
- (33) Two numbers , one of them is more than the other by **3** , if the smaller number equals (  $x - 3$  ) then the greater number equals.....  
(  $3 - x$  or  $x$  or  $3x$  or  $x + 3$  )
- (34) The sum of two integer numbers is **7**, if one of them is  $x$  , then the other number is ..... (  $x - 7$  or  $7 - x$  or  $x + 7$  or  $7x$  )
- (35) A circle of radius length **7** cm , then its **circumference** = ..... cm  
(  $\pi = \frac{22}{7}$  ) (  $49$  or  $44$  or  $154$  or  $22$  )
- (36) A circle of radius length **7** cm , then its **area** = .....  $\text{cm}^2$  (  $\pi = \frac{22}{7}$  )  
(  $49$  or  $44$  or  $154$  or  $22$  )
- (37) The surface area of the circle of diameter length **8** cm = .....  $\pi \text{ cm}^2$   
(  $4$  or  $8$  or  $16$  or  $64$  )
- (38) A circle, its diameter length **6** cm, then its surface area = .....  $\text{cm}^2$   
(  $3\pi$  or  $6\pi$  or  $9\pi$  or  $36\pi$  )
- (39) A circle its area is  $25\pi \text{ cm}^2$  , then its radius length = ..... cm  
(  $25$  or  $50$  or  $125$  or  $5$  )
- (40) A circle its area is  $25\pi \text{ cm}^2$  , then its diameter length = ..... cm  
(  $100$  or  $50$  or  $10$  or  $5$  )
- (41) The surface area of the circle of radius length **7** cm = .....  $\pi \text{ cm}^2$   
(  $7$  or  $14$  or  $49$  or  $154$  )
- (42) If the circumference of the circle =  $20\pi \text{ cm}$  , then its area = .....  $\pi \text{ cm}^2$   
(  $100$  or  $200$  or  $300$  or  $400$  )
- (43) A circle its area is  $49\pi \text{ cm}^2$  , then its radius length = ..... cm  
(  $7$  or  $14$  or  $21$  or  $28$  )

**Mr. Omar EL Saiedy**

- (44) The **lateral** area of the cube = Area of one face x .....  
( 2 or 3 or 4 or 6 )
- (45) The **total** area of the cube = Area of one face x .....  
( 2 or 3 or 4 or 6 )
- (46) The **lateral** area of the cuboid = the perimeter of the base x .....  
( height or width or length or volum )
- (47) The **lateral** area of the cuboid with length is 3 cm , width is 2 cm and height is 4 cm = .....  $\text{cm}^2$  ( 20 or 24 or 40 or 52 )
- (48) The **lateral** area of the cuboid with square base of length is 8 cm and the height is 5 cm = .....  $\text{cm}^2$  ( 40 or 80 or 160 or 240 )
- (49) The **total** area of the cuboid with length is 12 cm , width is 6 cm and height is 4 cm. = .....  $\text{cm}^2$  ( 216 or 36 or 360 or 288 )
- (50) The **total** area of the cuboid =  $32 \text{ cm}^2$  and it's **lateral** area =  $12 \text{ cm}^2$ , then the area of one of its base = .....  $\text{cm}^2$  ( 32 or 20 or 18 or 10 )
- (51) A cuboid its dimensions base are 4 cm and 3 cm and its **lateral** area =  $140 \text{ cm}^2$ , then its volume = .....  $\text{cm}^3$  ( 1680 or 120 or 168 or 60 )
- (52) The perimeter of the opposite figure = ..... cm  
(  $2\pi$  or  $5\pi$  or  $\pi + 4$  or  $4\pi + 4$  )
- (53) The area of the opposite figure = .....  $\text{cm}^2$   
(  $16\pi$  or  $4\pi$  or  $2\pi$  or  $4\pi^2$  )
- (54) The area of one face of the cube = ..... of its **lateral** area  
(  $\frac{1}{2}$  or  $\frac{1}{3}$  or  $\frac{1}{4}$  or  $\frac{1}{6}$  )
- (55) The area of one face of the cube = ..... of its **total** area  
(  $\frac{1}{2}$  or  $\frac{1}{3}$  or  $\frac{1}{4}$  or  $\frac{1}{6}$  )
- (56) The perimeter of the base cube is 28 cm , then its **lateral** area = .....  $\text{cm}^2$   
( 112 or 196 or 294 or 7 )



Mr. Omar EL Saiedy



- (57) The sum of the edge length of a cube equals 120 cm , then its total area = .....  $\text{cm}^2$  ( 100 or 200 or 400 or 600 )
- (58) The total area of a cube is 486  $\text{cm}^2$  , then its lateral area = .....  $\text{cm}^2$  ( 81 or 324 or 27 or 243 )
- (59) The lateral area of a cube is 100  $\text{cm}^2$  , then its total area = .....  $\text{cm}^2$  ( 25 or 50 or 125 or 150 )
- (60) The volume area of a cube is 1000  $\text{cm}^3$  , then its lateral area = .....  $\text{cm}^2$  ( 10 or 100 or 400 or 600 )
- (61) The perimeter of the base of a cuboid = 32 cm and its height = 10 cm , then its lateral area = .....  $\text{cm}^2$  ( 160 or 320 or 32 or 3200 )
- (62) The circumference of the circle =  $\pi \times$  ..... ( diagonal or side or diameter or radius )
- (63) The circumference of the circle =  $2 \times \pi \times$  ..... ( diagonal or side or diameter or radius )
- (64) A cuboid shaped box with a square base its length is 9 cm and its height is 20 cm , then its lateral area = .....  $\text{cm}^2$  ( 180 or 360 or 540 or 720 )
- (65) If the lateral area of a cube is 36  $\text{cm}^2$  , then its total area = .....  $\text{cm}^2$  ( 9 or 27 or 45 or 54 )
- (66) If the total area of a cube is 72  $\text{cm}^2$  , then its lateral area = .....  $\text{cm}^2$  ( 12 or 24 or 36 or 48 )
- (67) A cube without a lid its edge length is 10 cm , then its total area = .....  $\text{cm}^2$  ( 100 or 400 or 500 or 600 )
- (68) The area of one face of the cube whose lateral area = 400  $\text{cm}^2$  is.....  $\text{cm}^2$  ( 25 or 50 or 100 or 150 )
- (69) The edge length of the cube whose total area = 600  $\text{cm}^2$  is ..... cm ( 10 or 25 or 50 or 100 )

**Mr. Omar EL Saiedy**



- (70) The perimeter of the base cube is 36 cm , then its lateral area = ..... cm<sup>2</sup>  
( 9 or 81 or 324 or 546 )
- (71) A cube of edge length 6 cm , then its lateral area = ..... cm<sup>2</sup>  
( 24 or 36 or 144 or 216 )
- (72) A cube of edge length 5 cm , then its total area = ..... cm<sup>2</sup>  
( 25 or 100 or 125 or 150 )
- (73) The perimeter of one face of a cube = 12 cm , then its total area = ..... cm<sup>2</sup>  
( 9 or 27 or 36 or 54 )
- (74) The lateral area of a cube = 100 cm<sup>2</sup> , then its volume = ..... cm<sup>3</sup>  
( 5 or 25 or 125 or 150 )
- (75) The sum of the edge of a cube = 24 cm, then lengths its total area  
= ..... cm<sup>2</sup> ( 2 or 4 or 16 or 24 )
- (76) The ratio between the area of one face of a cube and its lateral area  
= ..... ( 1:1 or 1:4 or 1:6 or 2:3 )
- (77) The ratio between the area of one face of a cube and its total area  
= ..... ( 1:1 or 1:4 or 1:6 or 2:3 )
- (78) The ratio between the area of any two faces of a cube = .....  
( 1:1 or 1:4 or 1:6 or 2:3 )
- (79) The ratio between the lateral area of a cube and its total area = .....  
( 1:1 or 1:4 or 1:6 or 2:3 )
- (80) The lateral area of a cuboid = 160 cm<sup>2</sup> and dimensions base are 3 cm. and  
7 cm , then its height = ..... cm ( 6 or 8 or 10 or 16 )

# Mr. Omar EL Saiedy

*With my best wishes*

**Mr. Omar EL Saiedy**

**0111 27 39 174**





## Remember that

$a^n \times a^m = a^{n+m}$  ,  $a \in \mathbb{Z}$  ,  $a \neq 0$   
 $a^n \div a^m = a^{n-m}$  ,  $a \in \mathbb{Z}$  ,  $a \neq 0$  ,  $n > m$

$a^0 = 1$  ,  $a \neq 0$

**The equation :** is a mathematical sentence which includes one variable (unknown) (symbol) or more and **equality** relation between two sides.

**The inequality:** is a mathematical sentence which includes one variable (unknown) (symbol) or more and **inequality** relation between two sides.

**Solving the equation:** is finding the value of unknown that satisfies the equation.

If we multiply or divide each side of an inequality by a negative number we must reverse inequality relation.

$x - 2 = 5$  is an equation of the **first** degree.

$x^2 + 3 = 7$  is an equation of the **second** degree.

$x^3 + 1 = 9$  is an equation of the **third** degree.

The **circumference** of the circle = diameter length  $\times \pi$

The **circumference** of the circle =  $2 \times$  radius length  $\times \pi$

$$C = d \times \pi$$

$$C = 2 \times r \times \pi$$

$$\pi = \frac{22}{7} = 3.14$$

$$d = C \div \pi$$

$$r = C \div 2 \pi$$

$$2 \pi = \frac{44}{7} = 6.28$$



- The **diameter** length of the circle = radius length  $\times 2$
- The **radius** length of the circle = diameter length  $\div 2$
- The **area** of the circle =  $\pi r^2$

$$d = r \times 2$$

$$r = d \div 2$$

$$A = \pi r^2$$

- The **perimeter** of one face of a cube = edge length  $\times 4$

$$P = e.l \times 4$$

- The **area** of one face of a cube = edge length  $\times$  itself

$$A = e.l \times e.l$$

- The **lateral** area of a cube = area of one face  $\times 4$

$$L.S.A = e.l \times e.l \times 4$$

- The **total** area of a cube = area of one face  $\times 6$

$$T.S.A = e.l \times e.l \times 6$$

- The area of one face a cube =  $L.S.A \div 4$

- The area of one face a cube =  $T.S.A \div 6$

- $e.l$  = perimeter of one face  $\div 4$

- $e.l$  = the sum of edge lengths  $\div 12$

- The **volume** of a cube =  $e.l \times e.l \times e.l$

- The ratio between **area** of **one face** a cube and it's **lateral** area =  $1 : 4$

- The ratio between **area** of **one face** a cube and it's **total** area =  $1 : 6$

- The ratio between **lateral** area a cube and it's **total** area =  $2 : 3$



**Mr. Omar EL Saiedy**



- The **lateral** area of a cuboid = perimeter of the base  $\times$  height
- $L.S.A = p.b \times h$       •  $p.b = L.S.A \div h$       •  $h = L.S.A \div p.b$
- The **total** area of a cuboid = The lateral area + 2 (area of the base)
- $T.S.A = L.S.A + 2 (b.a)$
- The **total** area of a cuboid **without a lid** =  $L.S.A + (b.a)$
- The area of one base =  $(T.S.A - L.S.A) \div 2$

### **Cuboid with a rectangular base**

- The perimeter of the base =  $(L + W) \times 2$
- The area of one base =  $L \times W$
- $L.S.A = (L + W) \times 2 \times h$
- $T.S.A = L.S.A + 2 (L \times W)$
- The total area of a cuboid =  $(L \times W + L \times h + W \times h) \times 2$

### **Cuboid with a square base**

- The perimeter of the base =  $S.L \times 4$
- The area of one base =  $S.L \times S.L$
- $L.S.A = S.L \times 4 \times h$
- $T.S.A = L.S.A + 2 (S.L \times S.L)$

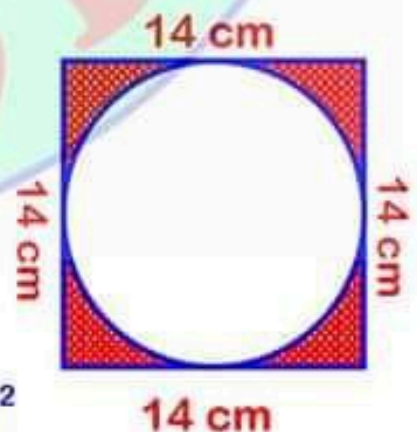
### **© Calculate the area of shaded part:-**

$$(\pi = \frac{22}{7})$$

• Area of the square =  $S.L \times S.L$   
 $= 14 \times 14 = 196 \text{ cm}^2$

• Area of the circle =  $\pi r^2$   
 $= \frac{22}{7} \times 7 \times 7 = 154 \text{ cm}^2$

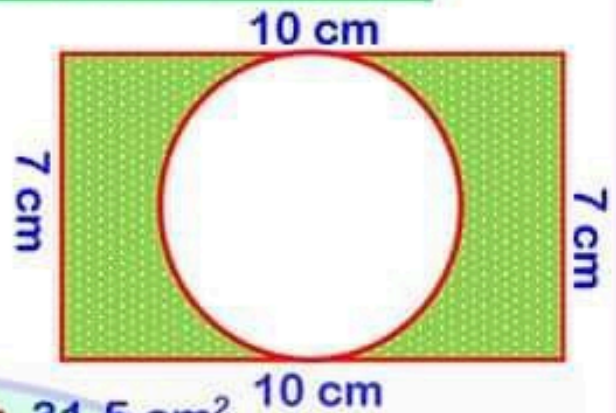
• Area of shaded part =  $196 - 154 = 42 \text{ cm}^2$



• Area of the rectangle =  $L \times W$   
 $= 10 \times 7 = 70 \text{ cm}^2$

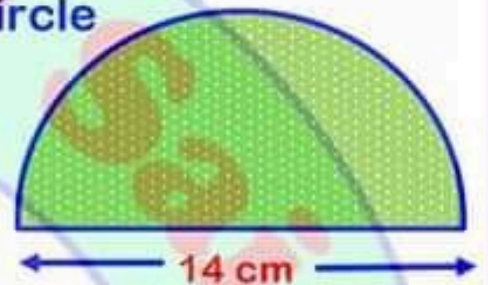
• Area of the circle =  $\pi r^2$   
 $= \frac{22}{7} \times 3.5 \times 3.5 = 38.5 \text{ cm}^2$

• Area of shaded part =  $70 - 38.5 = 31.5 \text{ cm}^2$



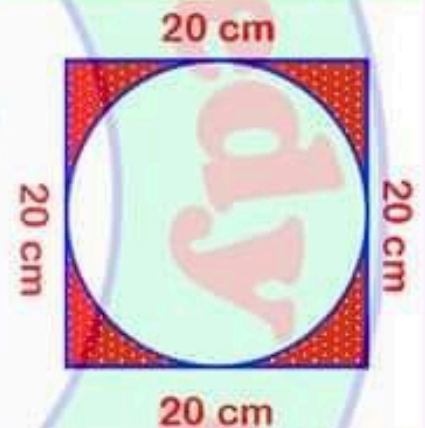
• Area of shaded part =  $\frac{1}{2}$  area of the circle

$= \frac{1}{2} \pi r^2 = \frac{1}{2} \times \frac{22}{7} \times 7 \times 7 = 77 \text{ cm}^2$



In the opposite figure :- A square of side length 20 cm, then find the area of shaded part in  $\text{cm}^2$ . ( $\pi = 3.14$ )

• Area of the square =  $S.L \times S.L = 20 \times 20 = 400 \text{ cm}^2$   
 • Area of the circle =  $\pi r^2 = 3.14 \times 10 \times 10 = 314 \text{ cm}^2$   
 • Area of shaded part =  $400 - 314 = 86 \text{ cm}^2$



In the opposite figure :- A rectangle of length 10 cm, its width 7 cm

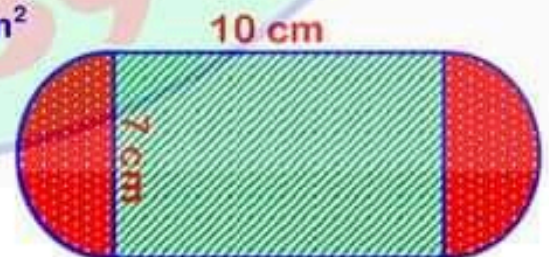
And two semicircles. Find the area of the figure in  $\text{cm}^2$ . ( $\pi = \frac{22}{7}$ )

• Area of the rectangle =  $L \times W = 10 \times 7 = 70 \text{ cm}^2$

• Area of the circle =  $\pi r^2$

$= \frac{22}{7} \times 3.5 \times 3.5 = 38.5 \text{ cm}^2$

• Area of shaded part =  $70 + 38.5 = 108.5 \text{ cm}^2$



**Mr. Omar EL Saiedy**

Choose the correct answer

- (1)  $(-1)^8 + (-1)^9 = \dots\dots\dots$  ( zero or - 1 or 1 or 2 )
- (2)  $(-1)^8 - (-1)^9 = \dots\dots\dots$  ( zero or - 1 or 1 or 2 )
- (3) If F is an odd number, then the even number from the following is.....  
(  $F^2$  or  $F^2+F$  or  $2F+1$  or  $F^3$  )
- (4) If  $0 \in \{ 5, x-3 \}$ , then  $x = \dots\dots\dots$  ( zero or - 5 or 3 or - 3 )
- (5)  $(-5)^{\text{zero}} + (5)^{\text{zero}} = \dots\dots\dots$  ( zero or - 1 or 1 or 2 )
- (6) If the age of Ahmed is  $3x$  years, then his age 3 years ago was.....  
(  $x+3$  or  $x-3$  or  $3x-3$  or  $3x+3$  )
- (7) The natural number just next to the number  $x+1$  is .....  
(  $x$  or  $x+2$  or  $x+3$  or  $x-1$  )
- (8) The preceding integer number to the number  $x-1$  is .....  
(  $x$  or  $x+1$  or  $x+2$  or  $x-2$  )
- (9) The additive inverse of  $(-8)^{\text{zero}}$  is ..... ( 8 or - 8 or 1 or - 1 )
- (10) The additive inverse of  $(-1)^3$  is ..... ( 3 or - 1 or 1 or - 3 )
- (11)  $3^6 \div 3^3 = \dots\dots\dots$  (  $6^3$  or  $3^2$  or 27 or 81 )
- (12)  $3^2 + 3^2 + 3^2 = \dots\dots\dots$  (  $2^3$  or  $3^3$  or  $3^6$  or  $2^6$  )
- (13)  $(-3)^3 + (-3)^2 = \dots\dots\dots$  ( -18 or  $(-3)^5$  or  $(-3)^6$  or 18 )
- (14) The additive inverse of  $(-3)^2$  is ..... ( 9 or 3 or - 9 or - 3 )
- (15) Which of the following represents an equation ?  
(  $x-17$  or  $22-7 < 15$  or  $x > -11$  or  $2x+3=7$  )
- (16) If:  $x+2 = |-4|$ , then  $x = \dots\dots\dots$  ( -2 or 2 or - 6 or 6 )
- (17) The set of solution of the equation  $2x-1 = -5$  in  $\mathbb{Z}^-$  is .....  
( {3} or {- 3} or {2} or {- 2} )

Mr. Omar EL Saiedy



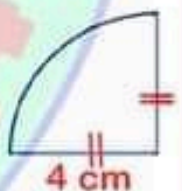
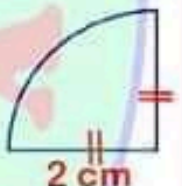
- (18) The equation  $x^2 + 3 = 4$  is of the ..... degree.  
( first or second or third or fourth )
- (19) The number which satisfies the inequality  $x - 2 > 3$  is .....  
( 3 or 4 or 5 or 6 )
- (20) All the following numbers satisfy the inequality  $x > -3$  except .....  
( zero or -1 or -2 or -4 )
- (21) If:  $x + 3 = 8$ ,  $x \in \mathbb{Z}^-$ , then solution set is..... ( -3 or {5} or {-5} or  $\emptyset$  )
- (22) The number which if it is add to its double the result will be 9 is.....  
( 2 or 3 or 4 or 5 )
- (23) The set of solution of the equation:  $x + 3 = 5$  in  $\mathbb{Z}$  is .....  
( {-8} or {-2} or {2} or {8} )
- (24) The set of solution of the equation:  $4x = -16$  in  $\mathbb{N}$  is .....  
(  $\emptyset$  or {-4} or {zero} or {4} )
- (25) The set of solution of the equation:  $2x + 3 = 3$  in  $\mathbb{Z}$  is .....  
( {3} or {-6} or {-3} or {zero} )
- (26) The set of solution of the inequality:  $2 \leq x < 3$  in  $\mathbb{Z}$  is .....  
( {0} or {2} or {3} or {2, 3} )
- (27) The set of solution of the inequality:  $-1 < x \leq 1$  in  $\mathbb{Z}$  is .....  
( {-1} or {0} or {-1, 1} or {0, 1} )
- (28) If the set of substitution is { 1, 2, 3, 4 }, then the set of solution of the equation:  $x + 6 = 10$  is .....  
( {1} or {2} or {3} or {4} )
- (29) The set of solution of the inequality:  $-1 < 2x < 1$  in  $\mathbb{Z}$  is .....  
( {-1} or {-2} or {-4} or {0} )
- (30) The greatest integer which satisfies the inequality:  $3 \leq x < 6$  is .....  
( 3 or 4 or 5 or 6 )
- (31) The circumference of the circle = ..... (  $\pi r$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$  )

Mr. Omar EL Saiedy

- (32) The **area** of the circle's surface = ..... (  $\pi r$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$  )
- (33) Two numbers , one of them is more than the other by 3 , if the smaller number equals (  $x - 3$  ) then the greater number equals.....  
(  $3 - x$  or  $x$  or  $3x$  or  $x + 3$  )
- (34) The sum of two integer numbers is 7, if one of them is  $x$  , then the other number is ..... (  $x - 7$  or  $7 - x$  or  $x + 7$  or  $7x$  )
- (35) A circle of radius length 7 cm , then its **circumference** = ..... cm  
(  $\pi = \frac{22}{7}$  ) ( 49 or 44 or 154 or 22 )
- (36) A circle of radius length 7 cm , then its **area** = .....  $\text{cm}^2$  (  $\pi = \frac{22}{7}$  )  
( 49 or 44 or 154 or 22 )
- (37) The surface area of the circle of diameter length 8 cm = .....  $\pi \text{ cm}^2$   
( 4 or 8 or 16 or 64 )
- (38) A circle, its diameter length 6 cm, then its surface area = .....  $\text{cm}^2$   
(  $3\pi$  or  $6\pi$  or  $9\pi$  or  $36\pi$  )
- (39) A circle its area is  $25\pi \text{ cm}^2$  , then its radius length = ..... cm  
( 25 or 50 or 125 or 5 )
- (40) A circle its area is  $25\pi \text{ cm}^2$  , then its diameter length = ..... cm  
( 100 or 50 or 10 or 5 )
- (41) The surface area of the circle of radius length 7 cm = .....  $\pi \text{ cm}^2$   
( 7 or 14 or 49 or 154 )
- (42) If the circumference of the circle =  $20\pi \text{ cm}$  , then its area = .....  $\pi \text{ cm}^2$   
( 100 or 200 or 300 or 400 )
- (43) A circle its area is  $49\pi \text{ cm}^2$  , then its radius length = ..... cm  
( 7 or 14 or 21 or 28 )

Mr. Omar EL Saiedy

- (44) The lateral area of the cube = Area of one face  $\times$  .....  
( 2 or 3 or 4 or 6 )
- (45) The total area of the cube = Area of one face  $\times$  .....  
( 2 or 3 or 4 or 6 )
- (46) The lateral area of the cuboid = the perimeter of the base  $\times$  .....  
( height or width or length or volum )
- (47) The lateral area of the cuboid with length is 3 cm , width is 2 cm and height is 4 cm = .....  $\text{cm}^2$  ( 20 or 24 or 40 or 52 )
- (48) The lateral area of the cuboid with square base of length is 8 cm and the height is 5 cm = .....  $\text{cm}^2$  ( 40 or 80 or 160 or 240 )
- (49) The total area of the cuboid with length is 12 cm , width is 6 cm and height is 4 cm. = .....  $\text{cm}^2$  ( 216 or 36 or 360 or 288 )
- (50) The total area of the cuboid =  $32 \text{ cm}^2$  and it's lateral area =  $12 \text{ cm}^2$ , then the area of one of its base = .....  $\text{cm}^2$  ( 32 or 20 or 18 or 10 )
- (51) A cuboid its dimensions base are 4 cm and 3 cm and its lateral area =  $140 \text{ cm}^2$ , then its volume = .....  $\text{cm}^3$  ( 1680 or 120 or 168 or 60 )
- (52) The perimeter of the opposite figure = ..... cm  
(  $2\pi$  or  $5\pi$  or  $\pi + 4$  or  $4\pi + 4$  )
- (53) The area of the opposite figure = .....  $\text{cm}^2$   
(  $16\pi$  or  $4\pi$  or  $2\pi$  or  $4\pi^2$  )
- (54) The area of one face of the cube = ..... of its lateral area  
(  $\frac{1}{2}$  or  $\frac{1}{3}$  or  $\frac{1}{4}$  or  $\frac{1}{6}$  )
- (55) The area of one face of the cube = ..... of its total area  
(  $\frac{1}{2}$  or  $\frac{1}{3}$  or  $\frac{1}{4}$  or  $\frac{1}{6}$  )
- (56) The perimeter of the base cube is 28 cm , then its lateral area = .....  $\text{cm}^2$   
( 112 or 196 or 294 or 7 )



Mr. Omar EL Saiedy



- (57) The sum of the edge length of a cube equals 120 cm , then its total area = ..... cm<sup>2</sup> ( 100 or 200 or 400 or 600 )
- (58) The total area of a cube is 486 cm<sup>2</sup> , then its lateral area = ..... cm<sup>2</sup> ( 81 or 324 or 27 or 243 )
- (59) The lateral area of a cube is 100 cm<sup>2</sup> , then its total area = ..... cm<sup>2</sup> ( 25 or 50 or 125 or 150 )
- (60) The volume area of a cube is 1000 cm<sup>3</sup> , then its lateral area = ..... cm<sup>2</sup> ( 10 or 100 or 400 or 600 )
- (61) The perimeter of the base of a cuboid = 32 cm and its height = 10 cm , then its lateral area = ..... cm<sup>2</sup> ( 160 or 320 or 32 or 3200 )
- (62) The circumference of the circle =  $\pi \times$  ..... ( diagonal or side or diameter or radius )
- (63) The circumference of the circle =  $2 \times \pi \times$  ..... ( diagonal or side or diameter or radius )
- (64) A cuboid shaped box with a square base its length is 9 cm and its height is 20 cm , then its lateral area = ..... cm<sup>2</sup> ( 180 or 360 or 540 or 720 )
- (65) If the lateral area of a cube is 36 cm<sup>2</sup> , then its total area = ..... cm<sup>2</sup> ( 9 or 27 or 45 or 54 )
- (66) If the total area of a cube is 72 cm<sup>2</sup> , then its lateral area = ..... cm<sup>2</sup> ( 12 or 24 or 36 or 48 )
- (67) A cube without a lid its edge length is 10 cm , then its total area = ..... cm<sup>2</sup> ( 100 or 400 or 500 or 600 )
- (68) The area of one face of the cube whose lateral area = 400 cm<sup>2</sup> is..... cm<sup>2</sup> ( 25 or 50 or 100 or 150 )
- (69) The edge length of the cube whose total area = 600 cm<sup>2</sup> is ..... cm ( 10 or 25 or 50 or 100 )

**Mr. Omar EL Saiedy**

- (70) The perimeter of the base cube is 36 cm , then its lateral area = ..... cm<sup>2</sup>  
( 9 or 81 or 324 or 546 )
- (71) A cube of edge length 6 cm , then its lateral area = ..... cm<sup>2</sup>  
( 24 or 36 or 144 or 216 )
- (72) A cube of edge length 5 cm , then its total area = ..... cm<sup>2</sup>  
( 25 or 100 or 125 or 150 )
- (73) The perimeter of one face of a cube = 12 cm , then its total area = ..... cm<sup>2</sup>  
( 9 or 27 or 36 or 54 )
- (74) The lateral area of a cube = 100 cm<sup>2</sup> , then its volume = ..... cm<sup>3</sup>  
( 5 or 25 or 125 or 150 )
- (75) The sum of the edge of a cube = 24 cm, then lengths its total area  
= ..... cm<sup>2</sup> ( 2 or 4 or 16 or 24 )
- (76) The ratio between the area of one face of a cube and its lateral area  
= ..... ( 1:1 or 1:4 or 1:6 or 2:3 )
- (77) The ratio between the area of one face of a cube and its total area  
= ..... ( 1:1 or 1:4 or 1:6 or 2:3 )
- (78) The ratio between the area of any two faces of a cube = .....  
( 1:1 or 1:4 or 1:6 or 2:3 )
- (79) The ratio between the lateral area of a cube and its total area = .....  
( 1:1 or 1:4 or 1:6 or 2:3 )
- (80) The lateral area of a cuboid = 160 cm<sup>2</sup> and dimensions base are 3 cm. and  
7 cm , then its height = ..... cm ( 6 or 8 or 10 or 16 )

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*With my best wishes*

**Mr. Omar EL Saiedy**

**0111 27 39 174**



# Choose the Correct Answer:

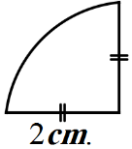
1.  $(-1)^8 + (-1)^9 = \dots\dots\dots$  ( zero or  $-1$  or  $1$  or  $2$  )
2. The circumference of the circle =  $\dots\dots\dots \times \pi$   
(  $r$  or  $2r$  or  $r^2$  or  $r+2$  )
3.  $\frac{2^3 \times 2^5}{2^2} = \dots\dots\dots$   $2^6$
4.  $2^5 \times 2^2 = \dots\dots\dots$  ( $2^7$  or  $4^7$  or  $1$  )
5. The surface area of a circle =  $\pi \times \dots\dots\dots$  (  $r$  or  $r^2$  or  $2r$  )
6.  $(-5)^2 \times (2)^2 = \dots\dots\dots$  (  $10^0$  or  $10$  or  $(10)^2$  or  $(10)^3$  )
7. The sum of edge lengths of a cube is  $84$  cm. , then its lateral area equals  $196$   $\text{cm}^2$
8.  $\frac{1}{3}$  ,  $\frac{2}{3}$  ,  $1$  ,  $\frac{4}{3}$  ,  $\frac{5}{3}$  ,  $2$  (in the same pattern)
9. The surface area of the circle =  $\dots\dots\dots$   
(  $\pi r$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$  )
10. If the lateral area of a cube is  $36 \text{ cm}^2$  , then its total area =  $\dots\dots\dots \text{cm}^2$   
(  $144$  or  $81$  or  $54$  or  $96$  )
11.  $(-1)^3 + 2 = \dots\dots\dots$  (  $3$  or  $-1$  or  $-3$  or  $1$  )
12.  $1$  ,  $4$  ,  $7$  ,  $10$  ,  $13$  ,  $16$  (in the same pattern)
13. A cuboid its lateral area  $120 \text{ cm}^2$  and the perimeter of its base  $20$  cm. , then its height =  $6$  cm.
14.  $\frac{8^3 \times 8^4}{8^7} = \dots\dots\dots$   $3^0 = 1$
15.  $5^2 \times 2^2 = \dots\dots\dots$  (  $5^4$  or  $2^4$  or  $10^2$  or  $10^4$  )
16.  $\{(-1)^{\text{zero}}, (\text{zero})^2\} \dots\dots\dots \mathbb{Z}$  (  $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$  )
17.  $(5)^{\text{zero}} = \dots\dots\dots$  ( zero or  $5$  or  $1$  or  $50$  )
18. The sum of edge lengths of a cube is  $96$  cm. , then its lateral area =  $256$   $\text{cm}^2$
19.  $25$  ,  $21$  ,  $17$  ,  $13$  ,  $9$  ,  $5$  (in the same pattern)

20.  $(-1)^2 - 1 = \dots\dots\dots$
21.  $3^5 \div 3^2 = \dots\dots\dots$  ( $3^7$  or  $3^{10}$  or  $3^3$  or  $3^2$ )
22.  $9^2 \dots\dots\dots (-3)^4$  ( $>$  or  $<$  or  $=$  or  $\geq$ )
23. A circle is of diameter length 10 cm. , then its area =  $\dots\dots\dots$  cm<sup>2</sup>  
(50 or 100 or 78.5 or 25)
24.  $\frac{1}{3}, \frac{1}{6}, \frac{1}{12}, \frac{1}{24}, \dots\dots\dots, \dots\dots\dots$  (in the same pattern)  
 $\frac{1}{48}, \frac{1}{96}$
25.  $(-100)^{\text{zero}} = \dots\dots\dots$  ( $-100$  or  $100$  or zero or 1)
26. The lateral area of the cube = area of one face  $\times \dots\dots\dots$   
(6 or 5 or 4 or 3)
27.  $9^7 \div 9^5 = \dots\dots\dots$  ( $9^{-12}$  or  $9^2$  or  $9^{\text{zero}}$  or  $9^{35}$ )
28. The next number in the pattern : 2 , 3 , 5 , 8 , 13 is  $\dots\dots\dots$   
(18 or 19 or 20 or 21)
29. A circle of diameter length 8 cm. , then its area =  $\dots\dots\dots$   $\pi$  cm<sup>2</sup>  
(4 or 8 or 16 or 64)
30.  $(-19)^0 + (19)^0 = \dots\dots\dots$  ( $-1$  or zero or 1 or 2)
31. The height of the cuboid whose lateral area is 160 cm<sup>2</sup> and the dimensions of its base are 3 cm. and 7 cm. equals  $\dots\dots\dots$  cm.  
(6 or 8 or 10 or 16)
32. A cube the perimeter of its base is 36 cm. , then its lateral area =  $\dots\dots\dots$  cm<sup>2</sup>  
(9 or 324 or 36 or 486)
33.  $(-1)^{104} + (-1)^{103} = \dots\dots\dots$  (0 or 2 or -1 or 1)
34.  $3^2 + 3^2 + 3^2 = \dots\dots\dots$  ( $2^6$  or  $4^6$  or  $3^3$  or  $2^9$ )
35. The lateral area of the cuboid whose length is 6 cm. and width is 4 cm. and its height is 5 cm. equals  $\dots\dots\dots$
36. A circle of diameter length 14 cm. , then its area =  $\dots\dots\dots$  cm<sup>2</sup> ( $\pi = \frac{22}{7}$ )  
154
37. If  $a = 3$  ,  $b = -2$  , then  $3ab = \dots\dots\dots$   
-18
38.  $-9^3 \dots\dots\dots (-3)^2$  ( $<$  or  $=$  or  $>$  or  $\geq$ )

39. The L.S.A. of the cuboid whose dimensions are 3 cm. , 4 cm. and 0.6 dm. <sup>b c m</sup>  
is ..... ( 72 cm<sup>2</sup> or 8.4 dm<sup>2</sup> or 84 dm<sup>2</sup> or 84 cm<sup>2</sup> )
40. Half the T.S.A. of a cube whose sum of its edge lengths is 36 cm.  
is ..... cm<sup>2</sup> ( 108 or 27 or 54 or 18 )
41. The ratio between the T.S.A. and L.S.A. of the cube is 3 : 2
42.  $(-1)^{12} + (-1)^{13} = \dots\dots\dots$  (0 or 1 or 2 or -1 )
43.  $5 \times 5^2 = \dots\dots\dots$  ( 25<sup>2</sup> or 25<sup>3</sup> or 5<sup>2</sup> or 5<sup>3</sup> )
44. A circle , its circumference is 44 cm. , then the length of its radius  
= ..... cm. (  $\pi = \frac{22}{7}$  ) ( 22 or 11 or 7 or 14 )
45. A cube of edge length 6 cm. , then its lateral area = ..... cm<sup>2</sup>  
( 216 or 180 or 144 or 108 )
46. The lateral area of the cube = Area of one face  $\times$  .....  
( 2 or 4 or 6 or height )
47.  $\frac{(-5)^3 \times (-5)^2}{(-5)^4} = -5$
48.  $(-1)^2 \times 2^3 = \dots\dots\dots$  ( 2<sup>5</sup> or 8 or -8 or -2<sup>5</sup> )
49. The lateral area of a cube whose side length is 3 cm. = ..... cm<sup>2</sup>  
( 27 or 48 or 36 or 54 )
50.  $2^6 \times 2^4 = \dots\dots\dots$  ( 2<sup>2</sup> or 2<sup>12</sup> or 2<sup>10</sup> or 2<sup>24</sup> )
51.  $3^7 \div 3^7 = \dots\dots\dots$  1
52. A circle , its diameter length is 7 cm. , then its area = 154 ..... cm<sup>2</sup> (  $\pi = \frac{22}{7}$  )
53. A cuboid whose length is 9 cm. , width is 7 cm. and its height is 10 cm. ,  
then its lateral area = 320 cm<sup>2</sup>
54. If the radius length of a circle is 10 cm. , then its surface area = ..... cm<sup>2</sup>  
(Given that :  $\pi = 3.14$ ) ( 3.14 or 31.4 or 314 or 3140 )
55. If the edge length of a cube is 6 cm. , then its total area = ..... cm<sup>2</sup>  
( 24 or 36 or 144 or 216 )
56.  $(3)^7 \div (3)^4 = \dots\dots\dots$  ( (3)<sup>3</sup> or (3)<sup>5</sup> or (3)<sup>11</sup> or (3)<sup>2</sup> )
57. If the area of one face of a cube equal 9 cm<sup>2</sup> , then its total area = 54 cm<sup>2</sup>

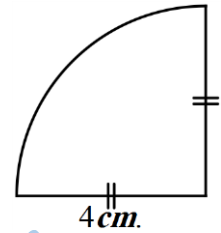
58. The perimeter of one face of a cube is 12 cm. , then its total area =  $\dots 54 \dots \text{cm}^2$
59.  $(-5)^2 \times (2)^2 = \dots \dots \dots$  (  $10^0$  or 10 or  $10^2$  or  $10^3$  )
60.  $27 \div (-3)^2 = \dots \dots \dots$  (  $-9$  or 24 or  $3$  or 81 )
61.  $(-6)^2 \dots \dots \dots - 12$  (  $>$  or = or  $<$  or  $\leq$  )
62. A circle , its diameter length is  $20 \text{ cm}$  . , then its area =  $\dots \dots \dots \text{cm}^2$  ( $\pi = 3.14$ )  
( 31.4 or  $314$  or 23.14 or 43.14 )
63.  $2 - (-3)^0 = \dots \dots \dots$  ( 5 or 3 or  $1$  or 2 )
64. The sum of edge lengths of a cube is 24 cm. , then T.S.A. =  $\dots \dots \dots \text{cm}^2$   
( 16 or 36 or 4 or  $24$  )
65. The additive inverse of  $(-3)^2$  is  $\dots \dots \dots$  ( 9 or 3 or  $-3$  or  $-9$  )
66. If the total area of the cube =  $54 \text{ cm}^2$  , then the area of one face =  $\dots \dots \dots \text{cm}^2$   
( 4 or 5 or 8 or  $9$  )
67. The total area of the cube = Area of one face  $\times \dots \dots \dots$   
( 2 or 4 or  $6$  or 8 )
68.  $2^5 \times 2^2 = \dots \dots \dots$  (  $2^7$  or  $2^4$  or  $2^3$  or 1 )
69. A circle , its radius length is 4 cm. , then its area =  $\dots \dots \dots \pi \text{ cm}^2$   
( 4 or 8 or 12 or  $16$  )
70.  $(-1)^8 + (-1)^9 + (-1)^{\text{zero}} = \dots \dots \dots$  ( zero or  $-1$  or  $1$  or 2 )
71. The height of a cuboid whose lateral area is  $160 \text{ cm}^2$  and dimensions of its base are 7 cm. and 3 cm. =  $\dots 8 \dots \text{cm}$ .
72. The lateral area of a cuboid of length 3 cm. , width 2 cm. and height 4 cm. =  $\dots \dots \dots \text{cm}^2$   
( 20 or 24 or  $40$  or 52 )
73. A cube of edge length 6 cm. , then its total area =  $\dots \dots \dots \text{cm}^2$   
( 36 or 72 or 144 or  $216$  )
74. The perimeter of the base of the cuboid is 10 cm. , its height is 4 cm. , then its lateral area =  $\dots 40 \dots \text{cm}^2$
75. The total surface area of a cuboid =  $100 \text{ cm}^2$  and area of one base  $20 \text{ cm}^2$  , then its lateral surface area =  $\dots \dots \dots \text{cm}^2$  ( 40 or  $60$  or 80 or 140 )
76. The lateral area of a cuboid of length 3 cm. , width 2 cm. and height 4 cm. =  $\dots 40 \dots \text{cm}^2$

Choose the correct answer:

1.	<p>The area of the circle = .....</p> <p>( <math>\pi r</math> or <math>\pi r^2</math> or <math>2\pi r</math> or <math>2\pi r^2</math> )</p>
2.	<p>The circumference of the circle = .....</p> <p>( <math>\pi r</math> or <math>2\pi r</math> or <math>\pi r^2</math> or <math>2\pi r^2</math> )</p>
3.	<p>A circle, its diameter length is 10 cm., then its area = ..... <math>\text{cm}^2</math>.</p> <p>( <math>10\pi</math> or <math>5\pi</math> or <math>15\pi^2</math> or <math>25\pi</math> )</p>
4.	<p>The circumference of a circle is 44 cm., then the length of its diameter is ..... cm. (<math>\pi = \frac{22}{7}</math>)</p> <p>( 14 or 22 or 44 or 154 )</p>
5.	<p>A circle with radius length = 1 cm., then its area = ..... <math>\text{cm}^2</math>.</p> <p>( <math>\pi</math> or <math>2\pi</math> or <math>\frac{1}{2}\pi</math> or <math>\pi^2</math> )</p>
6.	<p>The area of the circle with diameter of length 7 cm. equals ..... <math>\text{cm}^2</math>.</p> <p>( <math>49\pi</math> or <math>49\pi^2</math> or <math>14\pi</math> or <math>12.25\pi</math> )</p>
7.	<p>A circle its radius 3.5 cm., then the surface area = ..... <math>\text{cm}^2</math>. (where <math>\pi \frac{22}{7}</math>)</p> <p>( 11 or 22 or 38.5 or <math>38\frac{1}{8}</math> )</p>
8.	<p>The perimeter of the opposite figure = ..... cm.</p> <div style="text-align: right;">  </div> <p>( <math>2\pi</math> or <math>5\pi</math> or <math>\pi + 4</math> or <math>4\pi + 4</math> )</p>

9. The area of the opposite figure = .....  $\text{cm}^2$ .

(  $16\pi$  or  $4\pi$  or  $2\pi$  or  $4\pi^2$  )



10. A cube of side length 4 cm., then its lateral area = .....  $\text{cm}^2$ .

( 32 or 64 or 84 or 96 )

11. A cube whose edge length is 6 cm., then its total area = .....  $\text{cm}^2$ .

( 24 or 36 or 144 or 216 )

12. The total area of a cube is  $150 \text{ cm}^2$ , then its edge length = ..... cm.

( 3 or 4 or 5 or 6 )

13. If the total area of a cube is  $24 \text{ cm}^2$ , then its volume = .....  $\text{cm}^3$ .

( 8 or 2 or 4 or 16 )

14. The lateral area of a cuboid with base in the shape of a square with Side length 8 cm. and the height of the cuboid is 5 cm. = .....  $\text{cm}^2$ .

( 40 or 80 or 160 or 240 )

15. A cube-shaped box, without a lid, has ..... faces.

( 8 or 4 or 5 or 6 )

16. The area of one face of the cube = ..... its total area.

(  $\frac{1}{2}$  or  $\frac{1}{8}$  or  $\frac{1}{6}$  or  $\frac{1}{4}$  )

17. If the perimeter of one face of a cube = 4 cm., then its total area = .....  $\text{cm}^2$ .

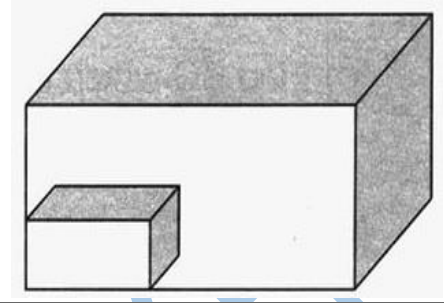
( 3 or 4 or 5 or 6 )

18. If the total area of a cuboid =  $32 \text{ cm}^2$ . and its lateral area =  $12 \text{ cm}^2$ ., then the area of one of its bases = .....  $\text{cm}^2$ .  
( 32 or 20 or 18 or 10 )
19. A cube without a lid of edge length 3 cm., then its total area = .....  
(54 or 45 or 36 or 9 )
20. If the edge length of a cube equals the side length of an equilateral triangle whose perimeter is 18 cm., then the lateral area of this cube = .....  $\text{cm}^2$ .  
( 36 or 144 or 180 or 216 )
21. The dimensions of a base of a cuboid are 4 cm. and 3 cm. and its lateral area =  $140 \text{ cm}^2$ ., then its volume = .....  $\text{cm}^3$ .  
(1680 or 120 or 168 or 60 )
22. A case in the shape of a cube without a lid. Its lateral area =  $20 \text{ cm}^2$ ., then the area of the faces of the cube equals .....  
(  $5 \text{ cm}^2$ . or  $25 \text{ cm}^2$ . or  $30 \text{ cm}^2$ . or  $40 \text{ cm}^2$ .)
23. If the perimeter of one face of a cube equals 12cm. then its lateral equals .....  
(  $27 \text{ cm}^2$ . or  $36 \text{ cm}^2$ . or  $48 \text{ cm}^2$ . or  $54 \text{ cm}^2$ .)
24. The height of a cuboid whose total area is  $400 \text{ cm}^2$ . and its base is squared form of the side length = 10 cm. equal .....  
(4cm. or 5cm. or 10cm or 12cm.)

25. If each dimension of a cuboid is doubled in length, then the ratio between its total are and the new total area equals .....

1:2 or 1:4

1:8 or 1:16



26. A cuboid in which: the lateral area  $120 \text{ cm}^2$ . and the dimensions of its base are 4 cm. and 6 cm., then its height = .....

( 5cm. or 6cm. or 2.5cm or 12cm.)

27. A cuboid of (the length = 3 cm. the width = 2 cm. and the height = 4 cm.), then its lateral area = .....  $\text{cm}^2$ .

(20 or 24 or 40 or 52)

28. The area of the circle's surface = .....

(  $\pi r$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$  )

29.  $2^6 \times 2^2 = \dots\dots\dots$

( $2^3$  or  $2^4$  or  $2^8$  or  $2^{12}$ )

30.  $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \dots\dots\dots$

( with the same pattern)

(  $\frac{1}{32}$  or  $\frac{1}{64}$  or  $\frac{1}{128}$  or  $\frac{1}{256}$  )

31.  $(-5)^2 < \dots\dots\dots$

(( $-2$ )<sup>5</sup> or  $-5 \times 2$  or  $-5 \times (-2)$  or  $2^5$ )

32.  $3^7 \div 3^7 = \dots\dots\dots$

(zero or 1 or 3 or 7)

33.  $3^2 + 3^2 + 3^2 = \dots\dots\dots$

( $2^6$  or  $4^6$  or  $3^3$  or  $2^9$ )

34.  $6 \div 3 \times 2 - 1 = \dots\dots\dots$

(1 or 2 or 3 or 4)

35.  $(-3)^2 = \dots\dots\dots$

(-9 or -6 or 6 or 9)

36.  $2^3 \div 2^2 = \dots\dots\dots$

(2 or 8 or 16 or 32)

37.  $(2)^6 \div (-2)^4 = \dots\dots\dots$

(-2<sup>10</sup> or -2<sup>2</sup> or 2<sup>2</sup> or 2<sup>10</sup>)

38.  $(-10)^{\text{zero}} = \dots\dots\dots$

(-10 or -1 or 1 or 10)

39.  $2^6 \times 2^2 = \dots\dots\dots$

(2<sup>3</sup> or 2<sup>4</sup> or 2<sup>8</sup> or 2<sup>12</sup>)

40.  $3^7 \div 3^4 = \dots\dots\dots$

(6<sup>3</sup> or 3<sup>5</sup> or 27 or 9)

41.  $\frac{6^4 \times 6^5}{6^7} = \dots\dots\dots$

(16 or 24 or 36 or 26)

42.  $(3)^0 + (-3)^0 = \dots\dots\dots$

(6 or 0 or 1 or 2)

43.  $2^2 + 2 = \dots\dots\dots$

(6 or 8 or 2<sup>3</sup> or 4<sup>3</sup>)

44.  $3^3 - 3^2 = \dots\dots\dots$

(3 or 3<sup>5</sup> or 3<sup>6</sup> or 18)

45.  $2^3 + 2^2 = \dots\dots\dots$

(10 or 12 or 32 or 64)

46.  $3^2 + 3^2 + 3^2 = \dots\dots\dots$

( $3^6$  or  $9^6$  or  $3^3$  or  $2^9$ )

47.  $(-5)^2 + 5 = \dots\dots\dots$

( $5^2$  or 20 or 15 or 30)

48.  $(-1)^3 + (-1)^4 = \dots\dots\dots$

(0 or -1 or 2 or -2)

49.  $\frac{7^5}{7^4} + 1 = \dots\dots\dots$

(7 or 1 or 8 or  $7^2$ )

50.  $(-2)^{20} \div 2^{15} = \dots\dots\dots$

( $2^5$  or  $(-2)^5$  or  $2^{35}$  or  $(-2)^{35}$ )

51.  $2^8 \div 2^4 = \dots\dots\dots$

( $2^{12}$  or  $2^2$  or  $2 \times 2^3$  or 8)

52. If  $3^5 \div 3^a = 3^0$ , then  $a = \dots\dots\dots$

(4 or 5 or 0 or -5)

53. A cube of edge length 6cm, then the lateral area =  $\dots\dots\dots$

(36 or 144 or 6 or 18)

54. A cube of edge length 8cm, then total area =  $\dots\dots\dots$

(64 or 8 or 384 or 300)

55. The total area of a cube whose face area is  $49\text{cm}^2 = \dots\dots\dots$   
(49 or 7 or 21 or 294 )
56. If the lateral area of a cube is  $36\text{ cm}^2$  then its total area =  $\dots\dots\dots$   
(9 or 36 or 54 or 18 )
57. If sum of edge lengths of a cube is 84cm then lateral area =  $\dots\dots\dots$   
(49 or 7 or 196 or 84 )
58. A circle its circumference is 44 cm then its area =  $\dots\dots\dots(\pi = \frac{22}{7})$   
( 7 or  $49\pi$  or 77 or 22)
59. Area of a circle of radius length 7cm ( $\pi = \frac{22}{7}$ )  
(22 or 44 or 154 or 56 )
60. The lateral area of the cuboid = the perimeter of the base  $\times \dots\dots$   
(height or width or length or volume)
61. The lateral area of the cuboid with length is 3 cm., width is 2cm. and height is 4cm. =  $\dots\dots\dots\text{ cm}^2$ .  
(20 or 24 or 40 or 52 )
62. The total area of the cuboid with length is 12cm., width is 6cm. and height is 4 cm. =  $\dots\dots\dots\text{ cm}^2$ .  
(216 or 36 or 360 or 288 )
63. The height of the cuboid whose lateral area is  $120\text{cm}^2$ . and the dimensions of its base are 6cm. and 4cm. =  $\dots\dots\dots\text{ cm}$ .  
(5 or 6 or 12 or 2.5 )

64. The equation  $x^2 + 3 = 4$  is of ..... degree.  
(first or second or third or fourth)
65. The number which satisfies the inequality:  $x < -1$  is .....  
(zero or 1 or 2 or -2)
66. All the following numbers satisfy the inequality:  $x > -3$  except.....  
( zero or -4 or -1 or -2)
67. The greatest integer that satisfies the inequality:  $x < 6$  is.....  
(3 or 5 or 8 or 6)
68. The number that satisfies the inequality:  $x - 2 > 3$  is.....  
(3 or 4 or 5 or 6)
69. The number -5 is a solution to the equation ..... where the Substitution set is  $\mathbb{Z}$   
( $x - 3 = 2$  or  $2x - 1 = 9$   
 $-2x + 3 = 13$  or  $x + 3 = 2x + 12$ )
70. If 3 is a solution to the equation:  $2x - 4 = a$ , then  $a =$  .....  
(3 or 2 or -2 or -3)
71. The set of substitution is  $\{1, 2, 3, 4\}$ , then the set of solution of the equation  $x + 6 = 10$  is .....  
( $\{1\}$  or  $\{2\}$  or  $\{3\}$  or  $\{4\}$ )
72. If the substitution set is  $\{2, -1, 3, 4\}$ , then the solution set of the equation:  $2x + 3 = 3$  is .....  
( $\{0\}$  or  $\{-1\}$  or  $\{3\}$  or  $\emptyset$ )
73. The solution set of the equation  $x + 5 = 2$  in  $\mathbb{Z}$  is {.....}  
(7 or -7 or 3 or -3)

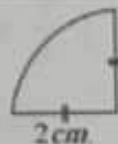
74. If  $x + 3 = 5$ ,  $x \in \mathbb{Z}$  then the solution set is .....  
( $\{-3\}$  or  $\{5\}$  or  $\{-5\}$  or  $\emptyset$ )
75. If zero  $\in \{5, x - 3\}$ , then  $x = \dots\dots\dots$   
(zero or  $-5$  or  $3$  or  $-3$ )
76. The solution set for the equation  $2x - 1 = -5$  in  $\mathbb{Z}$  is .....  
( $\{-3\}$  or  $\{\frac{-1}{2}\}$  or  $\{3\}$  or  $\{-2\}$ )
77. If  $3x + 9 = \text{zero}$ , then the solution set of the equation in  $\mathbb{Z}$  is ....  
( $\{9\}$  or  $\{-9\}$  or  $\{3\}$  or  $\{-3\}$ )
78. The S.S. of the equation  $4x = -16$  in  $\mathbb{N}$  is .....  
( $\emptyset$  or  $\{-4\}$  or  $\{0\}$  or  $\{4\}$ )
79. If  $x + 2 = |-4|$ , then  $x = \dots\dots\dots$   
( $-2$  or  $2$  or  $-6$  or  $6$ )
80. If  $|-4| x \times = 64$ , then  $x = \dots\dots\dots$   
( $-16$  or  $16$  or  $6$  or  $8$ )
81. If  $2x = 2$ , then  $3x - 1 = \dots\dots\dots$   
( $2$  or  $3$  or  $4$  or  $5$ )
82. If  $2x = 0$ , then  $x = \dots\dots\dots$   
( $2$  or  $3$  or  $5$  or zero)
83. If  $\frac{x}{5} = 4$ , then  $x = \dots\dots\dots$   
( $1$  or  $9$  or  $20$  or  $-1$ )

84. If  $2a + b = 10$ , then  $3a + b = \dots\dots\dots$   
(5 or 6 or 15 or 30)
85. If  $5x + 8x + 2x + 4x = 114$ , then  $5x + 3 = \dots\dots\dots$   
(33 or 35 or 47 or  $8x$ )
86. The solution set of the equation:  $x + 3 = 12$  is equal to the solution set of the equation .....  
( $x - 3 = -12$  or  $x + (-3) = 12$   
 $x - (-3) = 12$  or  $x - (-3) = -12$ )
87. The solution set of the inequality:  $x > 0$  in  $\mathbb{Z}$  is .....  
( $\mathbb{Z}$  or  $\mathbb{Z}^+$  or  $\mathbb{Z}^-$  or  $\mathbb{N}$ )
88. The S.S. of the inequality:  $-2x < 0$  in  $\mathbb{Z}$  is .....  
( $\emptyset$  or  $\mathbb{N}$  or  $\mathbb{Z}^-$  or  $\mathbb{Z}^+$ )
89. If  $x \in \mathbb{N}$ , Then the S.S. of the inequality:  $-x > 3$  is .....  
( $\{4, 5, 6, \dots\}$  or  $\{-4, -5, -6, \dots\}$  or  $\{-3\}$  or  $\emptyset$ )
90. The S.S. of the inequality:  $2x + 1 \leq 5$  in  $\mathbb{N}$  is .....  
( $\{2, 1, 0, -1, -2, \dots\}$  or  $\{2, 1, 0\}$   
 $\{1, 0, -1, -2, \dots\}$  or  $\{1, 0\}$ )
91. If  $2x + 5 > 3$  and  $x \in \mathbb{Z}$ , then the solution set = .....  
( $\mathbb{N}$  or  $\mathbb{N} - \{0\}$  or  $\mathbb{Z}^-$  or  $\mathbb{Z}^+$ )
92. The S.S. of the inequality:  $4 - x > 3$  in  $\mathbb{Z}^+$  is .....  
( $\{0, -1, -2, -3, \dots\}$  or  $\{0, 1, 2, 3, \dots\}$  or  $\{0\}$  or  $\emptyset$ )
93. The S.S. of the inequality:  $-1 \leq x < 1$  in  $\mathbb{Z}$  is .....  
( $\{0, -1\}$  or  $\{0, 1\}$  or  $\{0\}$  or  $\{1\}$ )

94. The solution set of the inequality:  $2 \leq x < 3$  where  $x \in \mathbb{N}$  is ....  
 ({zero} or {2} or {3} or {2, 3})
95. If  $x > 5$ , then:  $-x$  .....  
 ( $< -9$  or  $\geq -5$  or  $< -5$  or  $> -5$ )
96. The greatest integer that satisfies the inequality:  $3 \leq x < 6$   
 is .... (3 or 4 or 5 or 6)
97. 2 belongs to the S.S. of the inequality: ....., where  $x \in \mathbb{Z}$   
 ( $x > 2$  or  $x < 2$  or  $-x > -3$  or  $-x > 3$ )

Choose the correct answer:

1. The area of the circle = .....  
( $\pi r$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$ )
2. The circumference of the circle = .....  
( $\pi r$  or  $2\pi r$  or  $\pi r^2$  or  $2\pi r^2$ )
3. A circle, its diameter length is 10 cm., then its area = .....  $\text{cm}^2$ .  
( $10\pi$  or  $5\pi$  or  $15\pi^2$  or  $25\pi$ )
4. The circumference of a circle is 44 cm., then the length of its diameter is ..... cm. ( $\pi = \frac{22}{7}$ )  
(14 or 22 or 44 or 154)
5. A circle with radius length = 1 cm., then its area = .....  $\text{cm}^2$ .  
( $\pi$  or  $2\pi$  or  $\frac{1}{2}\pi$  or  $\pi^2$ )
6. The area of the circle with diameter of length 7 cm. equals .....  $\text{cm}^2$ .  
( $49\pi$  or  $49\pi^2$  or  $14\pi$  or  $12.25\pi$ )
7. A circle its radius 3.5 cm., then the surface area = .....  $\text{cm}^2$ .  
(where  $\pi = \frac{22}{7}$ ) (11 or 22 or  $38.5$  or  $38\frac{1}{8}$ )
8. The perimeter of the opposite figure = ..... cm.  
( $2\pi$  or  $5\pi$  or  $\pi + 4$  or  $4\pi + 4$ )



9. The area of the opposite figure = .....  $\text{cm}^2$ .

$(16\pi \text{ or } 4\pi \text{ or } 2\pi \text{ or } 4\pi^2)$



10. A cube of side length 4 cm., then its lateral area = .....  $\text{cm}^2$ .

$(32 \text{ or } 64 \text{ or } 84 \text{ or } 96)$

11. A cube whose edge length is 6 cm., then its total area = .....  $\text{cm}^2$ .

$(24 \text{ or } 36 \text{ or } 144 \text{ or } 216)$

12. The total area of a cube is  $150 \text{ cm}^2$ , then its edge length = ..... cm.

$(3 \text{ or } 4 \text{ or } 5 \text{ or } 6)$

13. If the total area of a cube is  $24 \text{ cm}^2$ , then its volume = .....  $\text{cm}^3$ .

$(8 \text{ or } 2 \text{ or } 4 \text{ or } 16)$

14. The lateral area of a cuboid with base in the shape of a square with Side length 8 cm. and the height of the cuboid is 5 cm. = .....  $\text{cm}^2$ .

$(40 \text{ or } 80 \text{ or } 160 \text{ or } 240)$

15. A cube-shaped box, without a lid, has ..... faces.

$(8 \text{ or } 4 \text{ or } 5 \text{ or } 6)$

16. The area of one face of the cube = ..... its total area.

$(\frac{1}{2} \text{ or } \frac{1}{8} \text{ or } \frac{1}{6} \text{ or } \frac{1}{4})$

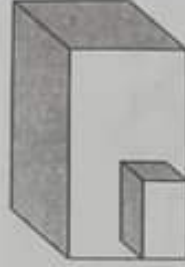
17. If the perimeter of one face of a cube = 4 cm., then its total area = .....  $\text{cm}^2$ .

$(3 \text{ or } 4 \text{ or } 5 \text{ or } 6)$

18. If the total area of a cuboid =  $32 \text{ cm}^2$ , and its lateral area =  $12 \text{ cm}^2$ , then the area of one of its bases = .....  $\text{cm}^2$ .  
(32 or 20 or 18 or 10)
19. A cube without a lid of edge length 3 cm., then its total area = .....  
(54 or 45 or 36 or 9)
20. If the edge length of a cube equals the side length of an equilateral triangle whose perimeter is 18 cm., then the lateral area of this cube = .....  $\text{cm}^2$ .  
(36 or 144 or 180 or 216)
21. The dimensions of a base of a cuboid are 4 cm. and 3 cm. and its lateral area =  $140 \text{ cm}^2$ , then its volume = .....  $\text{cm}^3$ .  
(1680 or 120 or 168 or 60)
22. A case in the shape of a cube without a lid. Its lateral area =  $20 \text{ cm}^2$ , then the area of the faces of the cube equals .....  
(5  $\text{cm}^2$  or 25  $\text{cm}^2$  or 30  $\text{cm}^2$  or 40  $\text{cm}^2$ .)
23. If the perimeter of one face of a cube equals 12 cm. then its lateral equals .....  
(27  $\text{cm}^2$  or 36  $\text{cm}^2$  or 48  $\text{cm}^2$  or 54  $\text{cm}^2$ .)
24. The height of a cuboid whose total area is  $400 \text{ cm}^2$ , and its base is squared form of the side length = 10 cm. equal .....  
(4 cm. or 5 cm. or 10 cm or 12 cm.)

25. If each dimension of a cuboid is doubled in length, then the ratio between its total area and the new total area equals .....

1:2 or  $\frac{1}{4}$   
1:8 or  $\frac{1}{16}$



26. A cuboid in which: the lateral area  $120 \text{ cm}^2$ , and the dimensions of its base are 4 cm. and 6 cm., then its height = .....
- ( 5cm. or 6cm. or 2.5cm or 12cm.)
27. A cuboid of (the length = 3 cm. the width = 2 cm. and the height = 4 cm.), then its lateral area = .....  $\text{cm}^2$ .  
(20 or 24 or 40 or 52)
28. The area of the circle's surface = .....  
(  $\pi r$  or  $\pi r^2$  or  $2\pi r$  or  $2\pi r^2$  )
29.  $2^6 \times 2^2 = \dots\dots\dots$   
( $2^3$  or  $2^4$  or  $2^8$  or  $2^{12}$ )
30.  $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \dots\dots\dots$   
( with the same pattern )  
(  $\frac{1}{32}$  or  $\frac{1}{64}$  or  $\frac{1}{128}$  or  $\frac{1}{256}$  )
31.  $(-5)^2 < \dots\dots\dots$   
(  $(-2)^5$  or  $-5 \times 2$  or  $-5 \times (-2)$  or  $2^5$  )
32.  $3^2 + 3^2 = \dots\dots\dots$   
(zero or 1 or 3 or 7)
33.  $3^2 + 3^2 + 3^2 = \dots\dots\dots$   
( $2^6$  or  $4^6$  or  $3^3$  or  $2^9$ )
34.  $6 \div 3 \times 2 - 1 = \dots\dots\dots$   
( 1 or 2 or 3 or 4 )

35.  $(-3)^2 = \dots\dots\dots$

$(-9 \text{ or } -6 \text{ or } 6 \text{ or } 9)$

36.  $2^3 \div 2^2 = \dots\dots\dots$

$(2 \text{ or } 8 \text{ or } 16 \text{ or } 32)$

37.  $(2)^6 \div (-2)^4 = \dots\dots\dots$

$(-2^{10} \text{ or } -2^2 \text{ or } 2^2 \text{ or } 2^{10})$

38.  $(-10)^{\text{ZERO}} = \dots\dots\dots$

$(-10 \text{ or } -1 \text{ or } 1 \text{ or } 10)$

39.  $2^6 \times 2^2 = \dots\dots\dots$

$(2^8 \text{ or } 2^4 \text{ or } 2^8 \text{ or } 2^{12})$

40.  $3^7 \div 3^4 = \dots\dots\dots$

$(6^3 \text{ or } 3^5 \text{ or } 27 \text{ or } 9)$

41.  $\frac{6^4 \times 6^5}{6^7} = \dots\dots\dots$

$(16 \text{ or } 24 \text{ or } 36 \text{ or } 26)$

42.  $(3)^0 + (-3)^0 = \dots\dots\dots$

$(6 \text{ or } 0 \text{ or } 1 \text{ or } 2)$

43.  $2^2 + 2 = \dots\dots\dots$

$(6 \text{ or } 8 \text{ or } 2^3 \text{ or } 4^3)$

44.  $3^3 - 3^2 = \dots\dots\dots$

$(3 \text{ or } 3^5 \text{ or } 3^6 \text{ or } 18)$

45.  $2^3 + 2^2 = \dots\dots\dots$

(10 or 12 or 32 or 64)

46.  $3^2 + 3^2 + 3^2 = \dots\dots\dots$

$(3^6 \text{ or } 9^6 \text{ or } 3^3 \text{ or } 2^9)$

47.  $(-5)^2 + 5 = \dots\dots\dots$

$(5^2 \text{ or } 20 \text{ or } 15 \text{ or } 30)$

48.  $(-1)^3 + (-1)^4 = \dots\dots\dots$

$(0 \text{ or } -1 \text{ or } 2 \text{ or } -2)$

49.  $\frac{7^5}{7^4} + 1 = \dots\dots\dots$

$(7 \text{ or } 1 \text{ or } 8 \text{ or } 7^2)$

50.  $(-2)^{20} \div 2^{15} = \dots\dots\dots$

$(2^5 \text{ or } (-2)^5 \text{ or } 2^{35} \text{ or } (-2)^{35})$

51.  $2^8 \div 2^4 = \dots\dots\dots$

$(2^{12} \text{ or } 2^2 \text{ or } 2 \times 2^3 \text{ or } 8)$

52. If  $3^5 + 3^4 = 3^0$ , then  $a = \dots\dots\dots$

$(4 \text{ or } 5 \text{ or } 0 \text{ or } -5)$

53. A cube of edge length 6cm, then the lateral area =  $\dots\dots\dots$

$(36 \text{ or } 144 \text{ or } 6 \text{ or } 18)$

54. A cube of edge length 8cm, then total area =  $\dots\dots\dots$

$(64 \text{ or } 8 \text{ or } 384 \text{ or } 300)$

55. The total area of a cube whose face area is  $49\text{cm}^2 = \dots\dots\dots$   
(49 or 7 or 21 or 294)
56. If the lateral area of a cube is  $36\text{ cm}^2$  then its total area =  $\dots\dots\dots$   
(9 or 36 or 54 or 18)
57. If sum of edge lengths of a cube is  $84\text{cm}$  then lateral area =  $\dots\dots\dots$   
(49 or 7 or 196 or 84)
58. A circle its circumference is  $44\text{cm}$  then its area =  $\dots\dots\dots (\pi = \frac{22}{7})$   
(7 or 49 or 77 or 22) or 154
59. Area of a circle of radius length  $7\text{cm}$  ( $\pi = \frac{22}{7}$ )  
(22 or 44 or 154 or 56)
60. The lateral area of the cuboid = the perimeter of the base  $\times \dots\dots$   
(height or width or length or volume)
61. The lateral area of the cuboid with length is  $3\text{ cm.}$ , width is  $2\text{cm.}$  and height is  $4\text{cm.} = \dots\dots\dots \text{cm}^2$ .  
(20 or 24 or 40 or 52)
62. The total area of the cuboid with length is  $12\text{cm.}$ , width is  $6\text{cm.}$  and height is  $4\text{ cm.} = \dots\dots\dots \text{cm}^2$ .  
(216 or 36 or 360 or 288)
63. The height of the cuboid whose lateral area is  $120\text{cm}^2$ . and the dimensions of its base are  $6\text{cm.}$  and  $4\text{cm.} = \dots\dots\dots \text{cm}$ .  
(5 or 6 or 12 or 2.5)

64. The equation  $x^2 + 3 = 4$  is of ..... degree.  
(first or second or third or fourth)
65. The number which satisfies the inequality:  $x < -1$  is .....  
(zero or 1 or 2 or -2)
66. All the following numbers satisfy the inequality:  $x > -3$  except.....  
(zero or -4 or -1 or -2)
67. The greatest integer that satisfies the inequality:  $x < 6$  is.....  
(3 or 5 or 8 or 6)
68. The number that satisfies the inequality:  $x - 2 > 3$  is.....  
(3 or 4 or 5 or 6)
69. The number -5 is a solution to the equation ..... where the Substitution set is  $\mathbb{Z}$   
( $x - 3 = 2$  or  $2x - 1 = 9$   
 $-2x + 3 = 13$  or  $x + 3 = 2x + 12$ )
70. If 3 is a solution to the equation:  $2x - 4 = a$ , then  $a =$  .....  
(3 or 2 or -2 or -3)
71. The set of substitution is  $\{1, 2, 3, 4\}$ , then the set of solution of the equation  $x + 6 = 10$  is .....  
( $\{1\}$  or  $\{2\}$  or  $\{3\}$  or  $\{4\}$ )
72. If the substitution set is  $\{2, -1, 3, 4\}$ , then the solution set of the equation:  $2x + 3 = 3$  is .....  
( $\{0\}$  or  $\{-1\}$  or  $\{3\}$  or  $\emptyset$ )
73. The solution set of the equation  $x + 5 = 2$  in  $\mathbb{Z}$  is {.....}  
(7 or -7 or 3 or -3)

74. If  $x + 3 = 5$ ,  $x \in \mathbb{Z}$  then the solution set is .....

( $\{-3\}$  or  $\{5\}$  or  $\{-5\}$  or  $\emptyset$ )

75. If  $0 \in \{5, x - 3\}$ , then  $x = \dots\dots\dots$

(zero or  $-5$  or  $3$  or  $-3$ )

76. The solution set for the equation  $2x - 1 = -5$  in  $\mathbb{Z}$  is .....

( $\{-3\}$  or  $\{\frac{-1}{2}\}$  or  $\{3\}$  or  $\{-2\}$ )

77. If  $3x + 9 = 0$ , then the solution set of the equation in  $\mathbb{Z}$  is ....

( $\{9\}$  or  $\{-9\}$  or  $\{3\}$  or  $\{-3\}$ )

78. The S.S. of the equation  $4x = -16$  in  $\mathbb{N}$  is .....

( $\emptyset$  or  $\{-4\}$  or  $\{0\}$  or  $\{4\}$ )

79. If  $x + 2 = |-4|$ , then  $x = \dots\dots\dots$

( $-2$  or  $2$  or  $-6$  or  $6$ )

80. If  $|-4| \cdot x = 64$ , then  $x = \dots\dots\dots$

( $-16$  or  $16$  or  $6$  or  $8$ )

81. If  $2x = 2$ , then  $3x - 1 = \dots\dots\dots$

( $2$  or  $3$  or  $4$  or  $5$ )

82. If  $2x = 0$ , then  $x = \dots\dots\dots$

( $2$  or  $3$  or  $5$  or  $0$ )

83. If  $\frac{x}{5} = 4$ , then  $x = \dots\dots\dots$

( $1$  or  $9$  or  $20$  or  $-1$ )

84. If  $2a = 10$ , then  $3a = \dots\dots\dots$   
(5 or 6 or 15 or 30)
85. If  $5x + 8x + 2x + 4x = 114$ , then  $5x + 3 = \dots\dots\dots$   
(33 or 35 or 47 or  $8x$ )
86. The solution set of the equation:  $x + 3 = 12$  is equal to the solution set of the equation  $\dots\dots\dots$   
( $x - 3 = -12$  or  $x + (-3) = 12$   
 $x - (-3) = 12$  or  $x - (-3) = -12$ )
87. The solution set of the inequality:  $x > 0$  in  $\mathbb{Z}$  is  $\dots\dots\dots$   
( $\mathbb{Z}$  or  $\mathbb{Z}^+$  or  $\mathbb{Z}^-$  or  $\mathbb{N}$ )
88. The S.S. of the inequality:  $-2x < 0$  in  $\mathbb{Z}$  is  $\dots\dots\dots$   
( $\emptyset$  or  $\mathbb{N}$  or  $\mathbb{Z}^-$  or  $\mathbb{Z}^+$ )
89. If  $x \in \mathbb{N}$ , Then the S.S. of the inequality:  $-x > 3$  is  $\dots\dots\dots$   
( $\{4, 5, 6, \dots\}$  or  $\{-4, -5, -6, \dots\}$  or  $\{-3\}$  or  $\emptyset$ )
90. The S.S. of the inequality:  $2x + 1 \leq 5$  in  $\mathbb{N}$  is  $\dots\dots\dots$   
( $\{2, 1, 0, -1, -2, \dots\}$  or  $\{2, 1, 0\}$   
 $\{1, 0, -1, -2, \dots\}$  or  $\{1, 0\}$ )
91. If  $2x + 5 > 3$  and  $x \in \mathbb{Z}$ , then the solution set =  $\dots\dots\dots$   
( $\mathbb{N}$  or  $\mathbb{N} - \{0\}$  or  $\mathbb{Z}^-$  or  $\mathbb{Z}^+$ )
92. The S.S. of the inequality:  $4 - x > 3$  in  $\mathbb{Z}^+$  is  $\dots\dots\dots$   
( $\{0, -1, -2, -3, \dots\}$  or  $\{0, 1, 2, 3, \dots\}$  or  $\{0\}$  or  $\emptyset$ )
93. The S.S. of the inequality:  $-1 \leq x < 1$  in  $\mathbb{Z}$  is  $\dots\dots\dots$   
( $\{0, -1\}$  or  $\{0, 1\}$  or  $\{0\}$  or  $\{1\}$ )

94. The solution set of the inequality:  $2 \leq x < 3$  where  $x \in \mathbb{N}$  is .....  
 ({zero} or {2} or {3} or {2, 3})
95. If  $x > 5$ , then:  $-x$  .....  
 ( $< -9$  or  $\geq -5$  or  $< -5$  or  $> -5$ )
96. The greatest integer that satisfies the inequality:  $3 \leq x < 6$   
 is .....  
 (3 or 4 or 5 or 6)
97. 2 belongs to the S.S. of the inequality: ....., where  $x \in \mathbb{Z}$   
 ( $x > 2$  or  $x < 2$  or  $-x > -3$  or  $-x > 3$ )

# Sixth Prim. Final Revision April 2021

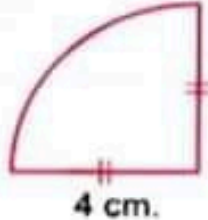
Choose the correct answer

1	$(-5)^2 \dots\dots \mathbb{N}$	$(\in \text{ or } \notin \text{ or } \subset \text{ or } \not\subset)$	
2	$(-3)^5 \dots\dots \mathbb{N}$	$(\in \text{ or } \notin \text{ or } \subset \text{ or } \not\subset)$	
3	$(-11)^0 \dots\dots \mathbb{N}$	$(\in \text{ or } \notin \text{ or } \subset \text{ or } \not\subset)$	
4	The additive inverse of $(-8)^0$ is .....	$(8 \text{ or } -8 \text{ or } 1 \text{ or } -1)$	
5	The additive inverse of $(-1)^3$ is .....	$(1 \text{ or } -1 \text{ or } 3 \text{ or } -3)$	
6	$2^6 \times 2^2 = \dots\dots$	$(2^3 \text{ or } 2^4 \text{ or } 2^8 \text{ or } 2^{12})$	
7	$3^7 \div 3^4 = \dots\dots$	$(6^3 \text{ or } 3^5 \text{ or } 27 \text{ or } 9)$	
8	$\frac{6^4 \times 6^5}{6^7} = \dots\dots$	$(16 \text{ or } 24 \text{ or } 36 \text{ or } 26)$	
9	$(3)^0 + (-3)^0 = \dots\dots$	$(6 \text{ or } 0 \text{ or } 1 \text{ or } 2)$	
10	$2^2 + 2 = \dots\dots$	$(6 \text{ or } 8 \text{ or } 2^3 \text{ or } 4^3)$	
11	$3^3 - 3^2 = \dots\dots$	$(3 \text{ or } 3^5 \text{ or } 3^6 \text{ or } 18)$	
12	$2^3 + 2^2 = \dots\dots$	$(10 \text{ or } 12 \text{ or } 32 \text{ or } 64)$	
13	$3^2 + 3^2 + 3^2 = \dots\dots$	$(3^6 \text{ or } 9^6 \text{ or } 3^3 \text{ or } 2^9)$	
14	$(-5)^2 + 5 = \dots\dots$	$(5^2 \text{ or } 20 \text{ or } 15 \text{ or } 30)$	
15	$(-1)^3 + (-1)^4 = \dots\dots$	$(0 \text{ or } -1 \text{ or } 2 \text{ or } -2)$	
16	$\frac{7^5}{7^4} + 1 = \dots\dots$	$(7 \text{ or } 1 \text{ or } 8 \text{ or } 7^2)$	
17	$(-2)^{20} \div 2^{15} = \dots\dots$	$(2^5 \text{ or } (-2)^5 \text{ or } 2^{35} \text{ or } (-2)^{35})$	
18	$2^8 \div 2^4 = \dots\dots$	$(2^{12} \text{ or } 2^2 \text{ or } 2 \times 2^3 \text{ or } 8)$	
19	If $3^5 \div 3^a = 3^0$ , then a = .....	$(4 \text{ or } 5 \text{ or } -5 \text{ or } 0)$	
20	$2^6 \times 2^2 = \dots\dots$ (a) $2^3$ (b) $2^4$ (c) $2^8$ (d) $2^{12}$		
21	$(-5)^2 < \dots\dots$ (a) $(-2)^5$ (b) $-5 \times 2$ (c) $-5 \times (-2)$ (d) $2^5$		
22	$3^7 + 3^7 = \dots\dots$ (a) zero (b) 1 (c) 3 (d) 7		
23	$3^2 + 3^2 + 3^2 = \dots\dots$ (a) $2^6$ (b) $4^6$ (c) $3^3$ (d) $2^9$		

24	$(-3)^2 = \dots\dots\dots$ (a) $-9$ (b) $-6$ (c) $6$ (d) $9$ _____
25	$2^3 + 2^2 = \dots\dots\dots$ (a) $2$ (b) $8$ (c) $16$ (d) $32$ _____
26	$(2)^6 + (-2)^4 = \dots\dots\dots$ (a) $-2^{10}$ (b) $-2^2$ (c) $2^2$ (d) $2^{10}$ _____
27	$(-10)^{\text{zero}} = \dots\dots\dots$ (a) $-10$ (b) $-1$ (c) $1$ (d) $10$ _____
28	$2^3 + 2^2 = \dots\dots\dots$ (a) $10$ (b) $12$ (c) $32$ (d) $64$ _____
29	$2^3 \times 2^3 = \dots\dots\dots$ (a) $2^6$ (b) $4^9$ (c) $4^6$ (d) $2^9$ _____
30	$\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \dots\dots\dots$ (with the same pattern) (a) $\frac{1}{32}$ (b) $\frac{1}{64}$ (c) $\frac{1}{128}$ (d) $\frac{1}{256}$ _____
31	$(-7)^2 \dots\dots\dots \mathbb{N}$ ( $\in$ or $\notin$ or $\subset$ or $\not\subset$ )
32	The additive inverse of $(-3)^2$ is $\dots\dots\dots$ ( $9$ or $3$ or $-3$ or $-9$ )
33	$(-9)^2 = \dots\dots\dots$ ( $-81$ or $-18$ or $81$ or $18$ )
34	$(-1)^8 + (-1)^9 = \dots\dots\dots$ (zero or $-1$ or $1$ or $2$ )
35	$2^5 \times 2^2 = \dots\dots\dots$ ( $2^7$ or $4^7$ or $1$ )
36	$(-5)^2 \times (2)^2 = \dots\dots\dots$ ( $10^0$ or $10$ or $(10)^2$ or $(10)^3$ )
37	$27 + (-3)^2 = \dots\dots\dots$ ( $-9$ or $24$ or $3$ or $81$ )
38	$(-1)^3 + 2 = \dots\dots\dots$ ( $3$ or $-1$ or $-3$ or $1$ )
39	$(5)^{\text{zero}} = \dots\dots\dots$ (zero or $5$ or $1$ or $50$ )
40	$3^5 + 3^2 = \dots\dots\dots$ ( $3^7$ or $3^{10}$ or $3^3$ or $3^2$ )
41	$9^2 \dots\dots\dots (-3)^4$ ( $>$ or $<$ or $=$ or $\geq$ )
42	$(-100)^{\text{zero}} = \dots\dots\dots$ ( $-100$ or $100$ or zero or $1$ )
43	$9^7 + 9^5 = \dots\dots\dots$ ( $9^{-12}$ or $9^2$ or $9^{\text{zero}}$ or $9^{35}$ )
44	$(-19)^0 + (19)^0 = \dots\dots\dots$ ( $-1$ or zero or $1$ or $2$ )
45	$(-1)^{104} + (-1)^{103} = \dots\dots\dots$ ( $0$ or $2$ or $-1$ or $1$ )
46	$-9^3 \dots\dots\dots (-3)^2$ ( $<$ or $=$ or $>$ or $\geq$ )
47	$(-1)^{12} + (-1)^{13} = \dots\dots\dots$ ( $0$ or $1$ or $2$ or $-1$ )

48	$5 \times 5^2 = \dots\dots\dots$	( $25^2$ or $25^3$ or $5^2$ or $5^3$ )
49	$(-1)^2 \times 2^3 = \dots\dots\dots$	( $2^5$ or 8 or -8 or $-2^5$ )
50	$2^6 \times 2^4 = \dots\dots\dots$	( $2^2$ or $2^{12}$ or $2^{10}$ or $2^{24}$ )
51	$(-1)^8 + (-1)^9 = \dots\dots\dots$	( zero or 1 or -1 or 2 )
52	$(3)^7 \div (3)^4 = \dots\dots\dots$	( $(3)^3$ or $(3)^5$ or $(3)^{11}$ or $(3)^2$ )
53	$(-5)^2 \times (2)^2 = \dots\dots\dots$	( $10^0$ or 10 or $10^2$ or $10^3$ )
54	$27 \div (-3)^2 = \dots\dots\dots$	( -9 or 24 or $3^{3/7}$ or 81 )
55	$(-6)^2 \dots\dots\dots -12$	( > or = or < or $\leq$ )
56	$2 - (-3)^0 = \dots\dots\dots$	( 5 or 3 or 1 or 2 )
57	The additive inverse of $(-3)^2$ is $\dots\dots\dots$	( 9 or 3 or -3 or -9 )
58	$\frac{1}{7^5} \times 7^5 \dots\dots\dots 1$	( < or = or > or otherwise )
59	$2^5 \times 2^2 = \dots\dots\dots$	( $2^7$ or $2^4$ or $2^3$ or 1 )
60	$(-1)^8 + (-1)^9 + (-1)^{\text{zero}} = \dots\dots\dots$	( zero or -1 or 1 or 2 )
61	$(-1)^{104} + (-1)^{103} = \dots\dots\dots$	( zero or -1 or 1 or 2 )
62	$4^2 \dots\dots\dots 8$	( > or < or = or otherwise )
63	The number of faces of the cube = $\dots\dots\dots$ faces.	( 6 or 8 or 12 or 4 )
64	The area of a circle = $\dots\dots\dots$	( $\pi r$ or $\pi r^2$ or $2\pi r$ or $2\pi r^2$ )
65	The circumference of a circle = $\dots\dots\dots$	( $\pi r$ or $2\pi r$ or $\pi r^2$ or $2\pi r^2$ )
66	A circle, its radius length is 3.5 cm. , then the surface area = $\dots\dots\dots$ cm <sup>2</sup> (Consider $\pi = \frac{22}{7}$ ) (El-Sharkia 2012)	( 11 or 22 or 38.5 or $38\frac{1}{8}$ )
67	A circle with radius length = 1 cm. , then its area = $\dots\dots\dots$ cm <sup>2</sup> (Ismailia 2011)	( $\pi$ or $2\pi$ or $\frac{1}{2}\pi$ or $\pi^2$ )
68	The area of the circle whose diameter length is 8 cm. = $\dots\dots\dots$ $\pi$ cm <sup>2</sup> (El-Menia 2015)	( 4 or 8 or 16 or 64 )
69	A circle , its diameter length is 6 cm. , then its surface area = $\dots\dots\dots$ cm <sup>2</sup> (Ismailia 2014)	( $3\pi$ or $6\pi$ or $9\pi$ or $36\pi$ )
70	The circumference of a circle is 44 cm. , then the length of its diameter is $\dots\dots\dots$ cm. (Consider $\pi = \frac{22}{7}$ )	( 14 or 22 or 44 or 154 )
71	The perimeter of the opposite figure = $\dots\dots\dots$ cm. (Souhag 2017)	( $2\pi$ or $5\pi$ or $\pi + 4$ or $4\pi + 4$ )



72	<p>The area of the opposite figure = ..... <math>\text{cm}^2</math>  <math>(16\pi \text{ or } 4\pi \text{ or } 2\pi \text{ or } 4\pi^2)</math></p>	
73	<p>The lateral area of the cube = Area of one face <math>\times</math> .....  <b>(a)</b> 2                      <b>(b)</b> 4                      <b>(c)</b> 6                      <b>(d)</b> 8</p>	(South Sinai 2013)
74	<p>A cube of side length 4 cm. , then its lateral area = ..... <math>\text{cm}^2</math>  <b>(a)</b> 32                      <b>(b)</b> 64                      <b>(c)</b> 84                      <b>(d)</b> 96</p>	(Beni Suef 2012)
75	<p>A cube of edge length 6 cm. , then its total area = ..... <math>\text{cm}^2</math>  <b>(a)</b> 36                      <b>(b)</b> 72                      <b>(c)</b> 144                      <b>(d)</b> 216</p>	(Cairo 2017)
76	<p>If the perimeter of one face of a cube = 4 cm. , then its total area = ..... <math>\text{cm}^2</math>  <b>(a)</b> 3                      <b>(b)</b> 4                      <b>(c)</b> 5                      <b>(d)</b> 6</p>	(El-Dakahlia 2011)
77	<p>The area of base of a cube is <math>49 \text{ cm}^2</math> , then its lateral area equals ..... <math>\text{cm}^2</math>  <b>(a)</b> 392                      <b>(b)</b> 294                      <b>(c)</b> 196                      <b>(d)</b> 96</p>	<div style="border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block;"> <b>(A)</b> 4 / 7         </div>
78	<p>A cube of total area <math>150 \text{ cm}^2</math> , then the length of its edge is ..... cm .  <b>(a)</b> 5                      <b>(b)</b> 6                      <b>(c)</b> 15                      <b>(d)</b> 10</p>	(Luxor 2015)
79	<p>If the total area of a cube is <math>24 \text{ cm}^2</math> , then its volume = ..... <math>\text{cm}^3</math>  <b>(a)</b> 8                      <b>(b)</b> 2                      <b>(c)</b> 4                      <b>(d)</b> 16</p>	(El-Fayoum 2012)
80	<p>A cube its lateral area = <math>36 \text{ cm}^2</math> , then its volume = ..... <math>\text{cm}^3</math>  <b>(a)</b> 27                      <b>(b)</b> - 27                      <b>(c)</b> - 1                      <b>(d)</b> <math>\emptyset</math></p>	(Souhag 2013)
81	<p>A cube, its volume is <math>1000 \text{ cm}^3</math> , then its lateral area = ..... <math>\text{cm}^2</math>  <b>(a)</b> 600                      <b>(b)</b> 500                      <b>(c)</b> 400                      <b>(d)</b> 200</p>	(Damietta 2016)
82	<p>A cube-shaped box , without a lid , has ..... faces.  <b>(a)</b> 4                      <b>(b)</b> 5                      <b>(c)</b> 6                      <b>(d)</b> 8</p>	
83	<p>A cube without a lid of edge length 3 cm. , then its total area = .....  <b>(a)</b> 54                      <b>(b)</b> 45                      <b>(c)</b> 36                      <b>(d)</b> 9</p>	

84	The area of one face of the cube = ..... its total area. (Kafr El-Sheikh 2011) (a) $\frac{1}{2}$ (b) $\frac{1}{8}$ (c) $\frac{1}{6}$ (d) $\frac{1}{4}$
85	The lateral area of the cuboid = the perimeter of the base $\times$ ..... (Suez 2016) (a) height (b) width (c) length (d) volume
86	The lateral area of the cuboid with length is 3 cm. , width is 2 cm. and height is 4 cm. = ..... $\text{cm}^2$ (El-Beheira 2013) (a) 20 (b) 24 (c) 40 (d) 52
87	The lateral area of a cuboid with base in the shape of a square with side length 8 cm. and the height of the cuboid is 5 cm. = ..... $\text{cm}^2$ (a) 40 (b) 80 (c) 160 (d) 240
88	The total area of the cuboid with length is 12 cm. , width is 6 cm. and height is 4 cm. = ..... $\text{cm}^2$ (a) 216 (b) 36 (c) 360 (d) 288
89	The height of the cuboid whose lateral area is $120 \text{ cm}^2$ and the dimensions of its base are 6 cm. and 4 cm. = ..... cm. (El-Gharbia 2014) (a) 5 (b) 6 (c) 12 (d) 2.5
90	If the total area of a cuboid = $32 \text{ cm}^2$ and its lateral area = $12 \text{ cm}^2$ , then the area of one of its bases = ..... $\text{cm}^2$ (a) 32 (b) 20 (c) 18 (d) 10
91	The dimensions of a base of a cuboid are 4 cm. and 3 cm. and its lateral area = $140 \text{ cm}^2$ , then its volume = ..... $\text{cm}^3$ (a) 1680 (b) 120 (c) 168 (d) 60
92	The circumference of the circle = ..... $\times \pi$ ( r or 2 r or $r^2$ or $r+2$ )
93	The surface area of a circle = $\pi \times$ ..... ( r or $r^2$ or 2 r )
94	The sum of edge lengths of a cube is 84 cm. , then its lateral area equals ..... $\text{cm}^2$
95	The height of the cuboid whose lateral area is $160 \text{ cm}^2$ and the dimensions of its base are 3 cm. and 7 cm. equals ..... cm. ( 6 or 8 or 10 or 16 )
96	A cube the perimeter of its base is 36 cm. , then its lateral area = ..... $\text{cm}^2$ ( 9 or 324 or 36 or 486 )
97	The area of the circle whose radius length is $2\pi$ cm. is ..... $\text{cm}^2$ ( $4\pi$ or $2\pi^2$ or 12.56 or $4\pi^3$ )

98	The L.S.A. of the cuboid whose dimensions are 3 cm. , 4 cm. and 0.6 dm. is ..... ( 72 cm <sup>2</sup> or 8.4 dm <sup>2</sup> or 84 dm <sup>2</sup> or 84 cm <sup>2</sup> )
99	Half the T.S.A. of a cube whose sum of its edge lengths is 36 cm. is ..... cm <sup>2</sup> ( 108 or 27 or 54 or 18 )
100	A circle , its circumference is 44 cm. , then the length of its radius = ..... cm. ( $\pi = \frac{22}{7}$ ) ( 22 or 11 or 7 or 14 )
101	A cube of edge length 6 cm. , then its lateral area = ..... cm <sup>2</sup> ( 216 or 180 or 144 or 108 )
102	The lateral area of the cube = Area of one face $\times$ ..... ( 2 or 4 or 6 or height )
103	The lateral area of a cube whose side length is 3 cm. = ..... cm <sup>2</sup> ( 27 or 48 or 36 or 54 )
104	If the radius length of a circle is 10 cm. , then its surface area = ..... cm <sup>2</sup> (Given that : $\pi = 3.14$ ) ( 3.14 or 31.4 or 314 or 3140 )
105	If the edge length of a cube is 6 cm. , then its total area = ..... cm <sup>2</sup> ( 24 or 36 or 144 or 216 )
106	The lateral surface area of the cube = area of one face $\times$ ..... ( 6 or 5 or 4 or 3 )
107	The surface area of the circle = ..... ( $\pi$ or $\pi r^2$ or $2\pi r$ or $2\pi r^2$ )
108	A circle , its diameter length is 20 cm. , then its area = ..... cm <sup>2</sup> ( $\pi = 3.14$ ) ( 31.4 or 314 or 23.14 or 43.14 )
109	The sum of edge lengths of a cube is 24 cm. , then T.S.A. = ..... cm <sup>2</sup> ( 16 or 36 or 4 or 24 )
110	If the total area of the cube = 54 cm <sup>2</sup> , then the area of one face = ..... cm <sup>2</sup> ( 4 or 5 or 8 or 9 )
111	The total area of the cube = Area of one face $\times$ ..... ( 2 or 4 or 6 or 8 )
112	A circle , its radius length is 4 cm. , then its area = ..... $\pi$ cm <sup>2</sup> ( 4 or 8 or 12 or 16 )
113	The sum of edge lengths of a cube is 96 cm. , then its lateral area = ..... cm <sup>2</sup> ( 8 or 64 or 256 or 384 )
114	The lateral area of a cuboid of length 3 cm. , width 2 cm. and height 4 cm. = ..... cm <sup>2</sup> ( 20 or 24 or 40 or 52 )
115	A cube of edge length 6 cm. , then its total area = ..... cm <sup>2</sup> ( 36 or 72 or 6 / 7 )
116	The area of the circle = ..... $\times \pi$ ( r or 2 r or 6 / 7 )
117	A cube of edge length 6 cm. , then its total area = ..... cm <sup>2</sup> ( 36 or 72 or 144 or 216 )

118	A circle, its radius length is 4 cm. , then its area = ..... $\pi$ cm <sup>2</sup> ( 8 or 16 or 64 or 2 r )
119	The total area of a cube is 324 cm <sup>2</sup> , then the area of face = ..... ( 54 cm <sup>2</sup> or 81 cm <sup>2</sup> or 54 cm. or 81 cm. )
120	The surface area of the circle whose diameter length is 20 cm. = ..... cm <sup>2</sup> ( $\pi = 3.14$ ) ( 314 or 0.314 or 3.14 or 62.8 )
121	If the lateral area of a cube is 36 cm <sup>2</sup> , then its total area = ..... cm <sup>2</sup>
123	A circle , its circumference is 88 cm. , then its radius length = ..... cm. ( $\pi = \frac{22}{7}$ ) ( 28 or 24 or 44 or 14 )
124	A cube of edge length 6 cm. , then its lateral area = ..... cm <sup>2</sup>
125	If the perimeter of base of a cube is 24 cm. , then its total area = ..... cm <sup>2</sup> ( 144 or 36 or 54 or 216 )
126	The total area of cube = ..... $\times$ area of one face ( 6 or 2 or 4 or 3 )

# Sixth Prim. Final Revision April 2021

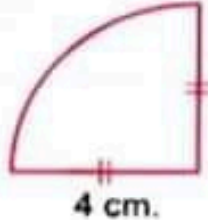
Choose the correct answer

1	$(-5)^2 \dots\dots \mathbb{N}$	( <u><math>\in</math></u> or $\notin$ or $\subset$ or $\not\subset$ )	
2	$(-3)^5 \dots\dots \mathbb{N}$	( $\in$ or <u><math>\notin</math></u> or $\subset$ or $\not\subset$ )	
3	$(-11)^0 \dots\dots \mathbb{N}$	( <u><math>\in</math></u> or $\notin$ or $\subset$ or $\not\subset$ )	
4	The additive inverse of $(-8)^0$ is .....	(8 or -8 or 1 or <u>-1</u> )	
5	The additive inverse of $(-1)^3$ is .....	( <u>1</u> or -1 or 3 or -3)	
6	$2^6 \times 2^2 = \dots\dots$	( $2^3$ or $2^4$ or <u><math>2^8</math></u> or $2^{12}$ )	
7	$3^7 \div 3^4 = \dots\dots$	( $6^3$ or $3^5$ or <u>27</u> or 9)	
8	$\frac{6^4 \times 6^5}{6^7} = \dots\dots$	(16 or 24 or <u>36</u> or 26)	
9	$(3)^0 + (-3)^0 = \dots\dots$	(6 or 0 or 1 or <u>2</u> )	
10	$2^2 + 2 = \dots\dots$	( <u>6</u> or 8 or $2^3$ or $4^3$ )	
11	$3^3 - 3^2 = \dots\dots$	(3 or $3^5$ or $3^6$ or <u>18</u> )	
12	$2^3 + 2^2 = \dots\dots$	(10 or <u>12</u> or 32 or 64)	
13	$3^2 + 3^2 + 3^2 = \dots\dots$	( $3^6$ or $9^6$ or <u><math>3^3</math></u> or $2^9$ )	
14	$(-5)^2 + 5 = \dots\dots$	( $5^2$ or 20 or <u>15</u> or <u>30</u> )	
15	$(-1)^3 + (-1)^4 = \dots\dots$	( <u>0</u> or -1 or 2 or -2)	
16	$\frac{7^5}{7^4} + 1 = \dots\dots$	(7 or 1 or <u>8</u> or $7^2$ )	
17	$(-2)^{20} \div 2^{15} = \dots\dots$	( <u><math>2^5</math></u> or $(-2)^5$ or $2^{35}$ or $(-2)^{35}$ )	
18	$2^8 \div 2^4 = \dots\dots$	( $2^{12}$ or $2^2$ or <u><math>2 \times 2^3</math></u> or 8)	
19	If $3^5 \div 3^a = 3^0$ , then a = .....	(4 or <u>5</u> or -5 or 0)	
20	$2^6 \times 2^2 = \dots\dots$ (a) $2^3$ (b) $2^4$ (c) <u><math>2^8</math></u> (d) $2^{12}$		
21	$(-5)^2 < \dots\dots$ (a) $(-2)^5$ (b) $-5 \times 2$ (c) $-5 \times (-2)$ (d) <u><math>2^5</math></u>		
22	$3^7 + 3^7 = \dots\dots$ (a) zero (b) <u>1</u> (c) 3 (d) 7		
23	$3^2 + 3^2 + 3^2 = \dots\dots$ (a) $2^6$ (b) $4^6$ (c) <u><math>3^3</math></u> (d) $2^9$		

24	$(-3)^2 = \dots\dots\dots$	(a) -9	(b) -6	(c) 6	(d) <u>9</u>	_____
25	$2^3 + 2^2 = \dots\dots\dots$	(a) <u>2</u>	(b) 8	(c) 16	(d) 32	_____
26	$(2)^6 + (-2)^4 = \dots\dots\dots$	(a) $-2^{10}$	(b) $-2^2$	(c) <u><math>2^2</math></u>	(d) $2^{10}$	_____
27	$(-10)^{\text{zero}} = \dots\dots\dots$	(a) -10	(b) -1	(c) <u>1</u>	(d) 10	_____
28	$2^3 + 2^2 = \dots\dots\dots$	(a) 10	(b) <u>12</u>	(c) 32	(d) 64	_____
29	$2^3 \times 2^3 = \dots\dots\dots$	(a) <u><math>2^6</math></u>	(b) $4^9$	(c) $4^6$	(d) $2^9$	_____
30	$\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \dots\dots\dots$ (a) <u><math>\frac{1}{32}</math></u>	(b) $\frac{1}{64}$	(c) $\frac{1}{128}$	(d) $\frac{1}{256}$	(with the same pattern)	_____
31	$(-7)^2 \dots\dots\dots \mathbb{N}$	( <u><math>\in</math></u> or $\notin$ or $\subset$ or $\not\subset$ )				
32	The additive inverse of $(-3)^2$ is $\dots\dots\dots$	( 9 or 3 or -3 or <u>-9</u> )				
33	$(-9)^2 = \dots\dots\dots$	( -81 or -18 or <u>81</u> or 18 )				
34	$(-1)^8 + (-1)^9 = \dots\dots\dots$	( <u>zero</u> or -1 or 1 or 2 )				
35	$2^5 \times 2^2 = \dots\dots\dots$	( <u><math>2^7</math></u> or $4^7$ or 1 )				
36	$(-5)^2 \times (2)^2 = \dots\dots\dots$	( $10^0$ or 10 or <u><math>(10)^2</math></u> or $(10)^3$ )				
37	$27 + (-3)^2 = \dots\dots\dots$	( -9 or 24 or <u>3</u> or 81 )				
38	$(-1)^3 + 2 = \dots\dots\dots$	( 3 or -1 or <u>-3</u> or 1 )				
39	$(5)^{\text{zero}} = \dots\dots\dots$	( zero or 5 or <u>1</u> or 50 )				
40	$3^5 + 3^2 = \dots\dots\dots$	( $3^7$ or $3^{10}$ or <u><math>3^3</math></u> or $3^2$ )				
41	$9^2 \dots\dots\dots (-3)^4$	( > or < or <u>=</u> or $\geq$ )				
42	$(-100)^{\text{zero}} = \dots\dots\dots$	( -100 or 100 or zero or <u>1</u> )				
43	$9^7 + 9^5 = \dots\dots\dots$	( $9^{-12}$ or <u><math>9^2</math></u> or $9^{\text{zero}}$ or $9^{35}$ )				
44	$(-19)^0 + (19)^0 = \dots\dots\dots$	( -1 or zero or 1 or <u>2</u> )				
45	$(-1)^{104} + (-1)^{103} = \dots\dots\dots$	( <u>0</u> or 2 or -1 or 1 )				
46	$-9^3 \dots\dots\dots (-3)^2$	( <u>&lt;</u> or = or > or $\geq$ )				
47	$(-1)^{12} + (-1)^{13} = \dots\dots\dots$	( <u>0</u> or 1 or 2 or -1 )				

48	$5 \times 5^2 = \dots\dots\dots$	( $25^2$ or $25^3$ or $5^2$ or <u><math>5^3</math></u> )
49	$(-1)^2 \times 2^3 = \dots\dots\dots$	( $2^5$ or <u>8</u> or -8 or $-2^5$ )
50	$2^6 \times 2^4 = \dots\dots\dots$	( $2^2$ or $2^{12}$ or <u><math>2^{10}</math></u> or $2^{24}$ )
51	$(-1)^8 + (-1)^9 = \dots\dots\dots$	( zero or <u>1</u> or -1 or 2 )
52	$(3)^7 \div (3)^4 = \dots\dots\dots$	( ( <u><math>(3)^3</math></u> or $(3)^5$ or $(3)^{11}$ or $(3)^2$ )
53	$(-5)^2 \times (2)^2 = \dots\dots\dots$	( $10^0$ or 10 or <u><math>10^2</math></u> or $10^3$ )
54	$27 \div (-3)^2 = \dots\dots\dots$	( -9 or 24 or <u><math>3\frac{3}{7}</math></u> or 81 )
55	$(-6)^2 \dots\dots\dots -12$	( > or = or < or $\leq$ )
56	$2 - (-3)^0 = \dots\dots\dots$	( 5 or 3 or <u>1</u> or 2 )
57	The additive inverse of $(-3)^2$ is $\dots\dots\dots$	( 9 or 3 or -3 or <u>-9</u> )
58	$\frac{1}{7^5} \times 7^5 \dots\dots\dots 1$	( < or <u>=</u> or > or otherwise )
59	$2^5 \times 2^2 = \dots\dots\dots$	( <u><math>2^7</math></u> or $2^4$ or $2^3$ or 1 )
60	$(-1)^8 + (-1)^9 + (-1)^{\text{zero}} = \dots\dots\dots$	( zero or -1 or <u>1</u> or 2 )
61	$(-1)^{104} + (-1)^{103} = \dots\dots\dots$	( zero or -1 or <u>1</u> or 2 )
62	$4^2 \dots\dots\dots 8$	( > or < or = or otherwise )
63	The number of faces of the cube = $\dots\dots\dots$ faces.	( 6 or 8 or 12 or 4 )
64	The area of a circle = $\dots\dots\dots$	( $\pi r$ or <u><math>\pi r^2</math></u> or $2\pi r$ or $2\pi r^2$ )
65	The circumference of a circle = $\dots\dots\dots$	( $\pi r$ or <u><math>2\pi r</math></u> or $\pi r^2$ or $2\pi r^2$ )
66	A circle, its radius length is 3.5 cm. , then the surface area = $\dots\dots\dots$ cm <sup>2</sup> (Consider $\pi = \frac{22}{7}$ ) (El-Sharkia 2012)	( 11 or 22 or <u>38.5</u> or $38\frac{1}{8}$ )
67	A circle with radius length = 1 cm. , then its area = $\dots\dots\dots$ cm <sup>2</sup> (Ismailia 2011)	( $\pi$ or $2\pi$ or <u><math>\frac{1}{2}\pi</math></u> or $\pi^2$ )
68	The area of the circle whose diameter length is 8 cm. = $\dots\dots\dots$ $\pi$ cm <sup>2</sup> (El-Menia 2015)	( 4 or 8 or <u>16</u> or 64 )
69	A circle , its diameter length is 6 cm. , then its surface area = $\dots\dots\dots$ cm <sup>2</sup> (Ismailia 2014)	( $3\pi$ or $6\pi$ or <u><math>9\pi</math></u> or $36\pi$ )
70	The circumference of a circle is 44 cm. , then the length of its diameter is $\dots\dots\dots$ cm. (Consider $\pi = \frac{22}{7}$ )	( <u>14</u> or 22 or 44 or 154 )
71	The perimeter of the opposite figure = $\dots\dots\dots$ cm. (Souhag 2017)	( $2\pi$ or $5\pi$ or <u><math>\pi + 4</math></u> or $4\pi + 4$ )



72	<p>The area of the opposite figure = ..... <math>\text{cm}^2</math>  <math>(16\pi</math> <u>or</u> <u><math>4\pi</math></u> <u>or</u> <math>2\pi</math> <u>or</u> <math>4\pi^2</math>)</p> 
73	<p>The lateral area of the cube = Area of one face <math>\times</math> ..... (South Sinai 2013)  <b>(a)</b> 2                      <u><b>(b)</b> 4</u>                      <b>(c)</b> 6                      <b>(d)</b> 8</p>
74	<p>A cube of side length 4 cm. , then its lateral area = ..... <math>\text{cm}^2</math> (Beni Suef 2012)  <b>(a)</b> 32                      <u><b>(b)</b> 64</u>                      <b>(c)</b> 84                      <b>(d)</b> 96</p>
75	<p>A cube of edge length 6 cm. , then its total area = ..... <math>\text{cm}^2</math> (Cairo 2017)  <b>(a)</b> 36                      <b>(b)</b> 72                      <b>(c)</b> 144                      <u><b>(d)</b> 216</u></p>
76	<p>If the perimeter of one face of a cube = 4 cm. , then its total area = ..... <math>\text{cm}^2</math> (El-Dakahlia 2011)  <b>(a)</b> 3                      <b>(b)</b> 4                      <b>(c)</b> 5                      <u><b>(d)</b> 6</u></p>
77	<p>The area of base of a cube is <math>49\text{ cm}^2</math> , then its lateral area equals ..... <math>\text{cm}^2</math>  <b>(a)</b> 392                      <b>(b)</b> 294                      <u><b>(c)</b> 196</u>                      <b>(d)</b> 96  <span style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">(A) 4 / 7</span></p>
78	<p>A cube of total area <math>150\text{ cm}^2</math> , then the length of its edge is ..... cm. (Luxor 2015)  <u><b>(a)</b> 5</u>                      <b>(b)</b> 6                      <b>(c)</b> 15                      <b>(d)</b> 10</p>
79	<p>If the total area of a cube is <math>24\text{ cm}^2</math> , then its volume = ..... <math>\text{cm}^3</math> (El-Fayoum 2012)  <u><b>(a)</b> 8</u>                      <b>(b)</b> 2                      <b>(c)</b> 4                      <b>(d)</b> 16</p>
80	<p>A cube its lateral area = <math>36\text{ cm}^2</math> , then its volume = ..... <math>\text{cm}^3</math> (Souhag 2013)  <u><b>(a)</b> 27</u>                      <b>(b)</b> - 27                      <b>(c)</b> - 1                      <b>(d)</b> <math>\emptyset</math></p>
81	<p>A cube, its volume is <math>1000\text{ cm}^3</math> , then its lateral area = ..... <math>\text{cm}^2</math> (Damietta 2016)  <b>(a)</b> 600                      <b>(b)</b> 500                      <u><b>(c)</b> 400</u>                      <b>(d)</b> 200</p>
82	<p>A cube-shaped box , without a lid , has ..... faces.  <b>(a)</b> 4                      <u><b>(b)</b> 5</u>                      <b>(c)</b> 6                      <b>(d)</b> 8</p>
83	<p>A cube without a lid of edge length 3 cm. , then its total area = .....  <b>(a)</b> 54                      <u><b>(b)</b> 45</u>                      <b>(c)</b> 36                      <b>(d)</b> 9</p>

84	The area of one face of the cube = ..... its total area. (Kafr El-Sheikh 2011) (a) $\frac{1}{2}$ (b) $\frac{1}{8}$ (c) $\frac{1}{6}$ (d) $\frac{1}{4}$
85	The lateral area of the cuboid = the perimeter of the base $\times$ ..... (Suez 2016) (a) height (b) width (c) length (d) volume
86	The lateral area of the cuboid with length is 3 cm. , width is 2 cm. and height is 4 cm. = ..... $\text{cm}^2$ (El-Beheira 2013) (a) 20 (b) 24 (c) 40 (d) 52
87	The lateral area of a cuboid with base in the shape of a square with side length 8 cm. and the height of the cuboid is 5 cm. = ..... $\text{cm}^2$ (a) 40 (b) 80 (c) 160 (d) 240
88	The total area of the cuboid with length is 12 cm. , width is 6 cm. and height is 4 cm. = ..... $\text{cm}^2$ (a) 216 (b) 36 (c) 360 (d) 288
89	The height of the cuboid whose lateral area is $120 \text{ cm}^2$ and the dimensions of its base are 6 cm. and 4 cm. = ..... cm. (El-Gharbia 2014) (a) 5 (b) 6 (c) 12 (d) 2.5
90	If the total area of a cuboid = $32 \text{ cm}^2$ and its lateral area = $12 \text{ cm}^2$ , then the area of one of its bases = ..... $\text{cm}^2$ (a) 32 (b) 20 (c) 18 (d) 10
91	The dimensions of a base of a cuboid are 4 cm. and 3 cm. and its lateral area = $140 \text{ cm}^2$ , then its volume = ..... $\text{cm}^3$ (a) 1680 (b) 120 (c) 168 (d) 60
92	The circumference of the circle = ..... $\times \pi$ ( r or 2 r or $r^2$ or $r+2$ )
93	The surface area of a circle = $\pi \times$ ..... ( r or $r^2$ or 2 r )
94	The sum of edge lengths of a cube is 84 cm. , then its lateral area equals ..... $\text{cm}^2$
95	The height of the cuboid whose lateral area is $160 \text{ cm}^2$ and the dimensions of its base are 3 cm. and 7 cm. equals ..... cm. ( 6 or 8 or 10 or 16 )
96	A cube the perimeter of its base is 36 cm. , then its lateral area = ..... $\text{cm}^2$ ( 9 or 324 or 36 or 486 )
97	The area of the circle whose radius length is $2\pi$ cm. is ..... $\text{cm}^2$ ( $4\pi$ or $2\pi^2$ or 12.56 or $4\pi^3$ )

196

5 / 7

98	The L.S.A. of the cuboid whose dimensions are 3 cm. , 4 cm. and 0.6 dm. is ..... ( 72 cm <sup>2</sup> or 8.4 dm <sup>2</sup> or 84 dm <sup>2</sup> or 84 cm <sup>2</sup> )
99	Half the T.S.A. of a cube whose sum of its edge lengths is 36 cm. is ..... cm <sup>2</sup> ( 108 or 27 or 54 or 18 )
100	A circle , its circumference is 44 cm. , then the length of its radius = ..... cm. ( $\pi = \frac{22}{7}$ ) ( 22 or 11 or 7 or 14 )
101	A cube of edge length 6 cm. , then its lateral area = ..... cm <sup>2</sup> ( 216 or 180 or 144 or 108 )
102	The lateral area of the cube = Area of one face $\times$ ..... ( 2 or 4 or 6 or height )
103	The lateral area of a cube whose side length is 3 cm. = ..... cm <sup>2</sup> ( 27 or 48 or 36 or 54 )
104	If the radius length of a circle is 10 cm. , then its surface area = ..... cm <sup>2</sup> (Given that : $\pi = 3.14$ ) ( 3.14 or 31.4 or 314 or 3140 )
105	If the edge length of a cube is 6 cm. , then its total area = ..... cm <sup>2</sup> ( 24 or 36 or 144 or 216 )
106	The lateral surface area of the cube = area of one face $\times$ ..... ( 6 or 5 or 4 or 3 )
107	The surface area of the circle = ..... ( $\pi$ or $\pi r^2$ or $2\pi r$ or $2\pi r^2$ )
108	A circle , its diameter length is 20 cm. , then its area = ..... cm <sup>2</sup> ( $\pi = 3.14$ ) ( 31.4 or 314 or 23.14 or 43.14 )
109	The sum of edge lengths of a cube is 24 cm. , then T.S.A. = ..... cm <sup>2</sup> ( 16 or 36 or 4 or 24 )
110	If the total area of the cube = 54 cm <sup>2</sup> , then the area of one face = ..... cm <sup>2</sup> ( 4 or 5 or 8 or 9 )
111	The total area of the cube = Area of one face $\times$ ..... ( 2 or 4 or 6 or 8 )
112	A circle , its radius length is 4 cm. , then its area = ..... $\pi$ cm <sup>2</sup> ( 4 or 8 or 12 or 16 )
113	The sum of edge lengths of a cube is 96 cm. , then its lateral area = ..... cm <sup>2</sup> ( 8 or 64 or 256 or 384 )
114	The lateral area of a cuboid of length 3 cm. , width 2 cm. and height 4 cm. = ..... cm <sup>2</sup> ( 20 or 24 or 40 or 52 )
115	A cube of edge length 6 cm. , then its total area = ..... cm <sup>2</sup> ( 36 or 72 or 144 or 216 )
116	The area of the circle = ..... $\times \pi$ ( $r^2$ or $2r$ or $\frac{6}{7}$ )
117	A cube of edge length 6 cm. , then its total area = ..... cm <sup>2</sup> ( 36 or 72 or 144 or 216 )

118	A circle, its radius length is 4 cm. , then its area = ..... $\pi$ cm <sup>2</sup> ( 8 or <u>16</u> or 64 or 2 r )
119	The total area of a cube is 324 cm <sup>2</sup> , then the area of face = ..... ( <u>54 cm<sup>2</sup></u> or 81 cm <sup>2</sup> or 54 cm. or 81 cm. )
120	The surface area of the circle whose diameter length is 20 cm. = ..... cm <sup>2</sup> ( $\pi = 3.14$ ) ( <u>314</u> or 0.314 or 3.14 or 62.8 )
121	If the lateral area of a cube is 36 cm <sup>2</sup> , then its total area = ..... cm <sup>2</sup> <u>54</u>
123	A circle , its circumference is 88 cm. , then its radius length = ..... cm. ( $\pi = \frac{22}{7}$ ) ( 28 or 24 or 44 or <u>14</u> )
124	A cube of edge length 6 cm. , then its lateral area = ..... cm <sup>2</sup> <u>144</u>
125	If the perimeter of base of a cube is 24 cm. , then its total area = ..... cm <sup>2</sup> ( 144 or 36 or 54 or <u>216</u> )
126	The total area of cube = ..... $\times$ area of one face ( <u>6</u> or 2 or 4 or 3 )

## Prim 6 April revision

Choose the correct answer from those given:

- 1)  $(-10)^{\text{zero}} = \dots\dots\dots$  (a) -10 (b) -1 (c) 1 (d) 10
- 2)  $(-19)^0 + (19)^0 = \dots\dots\dots$  (-1, 0, 2, -2)
- 3)  $-(3)^0 + 1 = \dots\dots\dots$  (-1, 0, 2, -2)
- 4)  $(-3)^2 = \dots\dots\dots$  (a) -9 (b) -6 (c) 6 (d) 9
- 5)  $(-2)^2 = \dots\dots\dots$  ((-2), (-4), (-32),  $2^2$ )
- 6)  $(-5)^2 < \dots\dots\dots$  (a)  $(-2)^5$  (b)  $-5 \times 2$  (c)  $-5 \times (-2)$  (d)  $2^5$
- 7)  $(-1)^3 + 1^3 = \dots\dots\dots$  (a) zero (b) 21 (c) -1 (d) 2
- 8)  $2^3 + 2^2 = \dots\dots\dots$  (a) 10 (b) 12 (c) 32 (d) 64
- 9)  $2^3 \times 2^2 = \dots\dots\dots$  (a)  $2^6$  (b)  $4^9$  (c)  $4^6$  (d)  $2^5$
- 10)  $2^6 \times 2^2 = \dots\dots\dots$  (a)  $2^3$  (b)  $2^4$  (c)  $2^8$  (d)  $2^{12}$
- 11)  $2^3 \div 2^2 = \dots\dots\dots$  (a) 2 (b) 8 (c) 16 (d) 32
- 12)  $3^7 \div 3^7 = \dots\dots\dots$  (a) zero (b) 1 (c) 3 (d) 7
- 13)  $(2)^6 \div (-2)^4 = \dots\dots\dots$  (a)  $-2^{10}$  (b)  $-2^2$  (c)  $2^2$  (d)  $2^{10}$
- 14)  $3^2 + 3^2 + 3^2 = \dots\dots\dots$  (a)  $2^6$  (b)  $4^6$  (c)  $3^3$  (d)  $2^9$
- 15)  $3^5 + 3^5 + 3^5 = \dots\dots\dots$  ( $3^{15}$ ,  $3^6$ ,  $9^5$ )
- 16) Double of the number  $2^{10} = \dots\dots\dots$  ( $2^{20}$ ,  $4^{10}$ ,  $4^{20}$ ,  $2^{11}$ )



- 17) Quarter of  $4^{20} = \dots\dots\dots$  ( $4^{10}$  ,  $2^{20}$  ,  $4^{19}$  )
- 18) Quarter of  $2^{12} = \dots\dots\dots$  ( $2^3$  ,  $2^{10}$  ,  $4^{20}$  ,  $2^8$ )
- 19)  $\frac{1}{2}$  ,  $\frac{1}{4}$  ,  $\frac{1}{8}$  ,  $\frac{1}{16}$  ,  $\dots\dots\dots$  (a)  $\frac{1}{32}$  (b)  $\frac{1}{64}$  (c)  $\frac{1}{128}$  (d)  $\frac{1}{256}$
- 20) area of the circle =  $\dots\dots\dots$  ( $\pi r$  ,  $\pi r^2$  ,  $2 \pi r$  ,  $2 \pi r^2$ )
- 21) A circle its diameter 10 cm then its area =  $\dots\dots\dots \text{cm}^2$   
( $10 \pi$  ,  $5 \pi$  ,  $25 \pi$  ,  $15 \pi$ )
- 22) A circle its diameter length 8 cm , then its area =  $\dots\dots\dots \text{cm}^2$   
( $8\pi$  ,  $64 \pi$  ,  $16\pi^2$  ,  $16 \pi$ )
- 23) The area of the circle whose diameter length 7 cm =  $\dots\dots\dots \text{cm}^2$   
( $49\pi$  ,  $49\pi^2$  ,  $14\pi$  ,  $12.25 \pi$ )
- 24) A circle its area is  $616 \text{ cm}^2$  then its radius length is  $\dots\dots\dots \text{cm}$   
(14 , 41 , 15 , 51)
- 25) A circle its circumference is 44 cm then its diameter length is  $\dots\dots\dots \text{cm}$   
(14, 22, 44, 154)
- 26) Cube with edge length 5cm the perimeter of its face =  $\dots\dots\dots$   
[21cm , 25cm , 50cm , 2dm]
- 27) If the perimeter of one face of a cube is 4 cm then its total area =  $\dots\dots\dots \text{cm}^2$   
( 3 , 4 , 5 , 6)



- 28) If the perimeter of one face of a cube = 8cm then its total area = ----  $cm^2$   
(a) 30 (b) 24 (c) 54 (d) 60
- 29) The sum of lateral surface area and total surface area of cube  
=  $250cm^2$  Then its volume = .....  $cm^3$  [25 , 125 , 150 , 100]
- 30) The T.S.A. of cube is  $216 cm^2$ , then area of one face = .....  $cm^2$   
(a) 63 (b) 36 (c) 45 (d) 54
- 31) In a cube the ratio between face area, lateral surface area, total  
surface area = .... : .... : .... [1:2:3, 1:2:6 , 1:4:6 , 2:3:1 ]
- 32) The ratio between perimeter of one face of a cube and the sum of all  
edges = .... : .... [ 2:3 , 1:3 , 3:2 , 3:1 ]
- 33) The ratio between number of edges and number of vertices and  
number of faces of cube = ..... [8:6:12 , 4:6:3 , 6:4:3 , 3:4:6 ]
- 34) Area of each face of a cube = ..... total area  $(\frac{1}{2}, \frac{1}{4}, \frac{1}{6}, \frac{1}{8})$
- 35) The lateral area of the cuboid with length = 3cm , width = 2cm and  
height = 4cm equals -----  $cm^2$  (a) 20 (b) 24 (c) 40 (d) 52
- 36) A cuboid its total area is  $140 cm^2$  and lateral area is  $100 cm^2$  then its  
base area = .....  $cm^2$  (40 , 30 , 20 , 10)



37) A case in the shape of a cube without lid. Its lateral area =  $20 \text{ cm}^2$ , then the area of the faces of the cube equals .....

(a)  $5 \text{ cm}^2$  (b)  $25 \text{ cm}^2$  (c)  $30 \text{ cm}^2$  (d)  $40 \text{ cm}^2$

38) If the perimeter of one face of a cube equals  $12 \text{ cm}$ . then its lateral equals.....

(a)  $27 \text{ cm}^2$  (b)  $36 \text{ cm}^2$  (c)  $48 \text{ cm}^2$  (d)  $54 \text{ cm}^2$

39) The height of a cuboid whose total area is  $400 \text{ cm}^2$  and its base is squared form of the side length =  $10 \text{ cm}$  equals .....

(a)  $4 \text{ cm}$  (b)  $5 \text{ cm}$  (c)  $10 \text{ cm}$  (d)  $12 \text{ cm}$

40) If each dimension of a cuboid is doubled in length then, the ratio between its total area and the new total area equals.....

(a)  $1 : 2$  (b)  $1 : 4$  (c)  $1 : 8$  (d)  $1 : 16$



## Prim 6 April revision

Choose the correct answer from those given:

- 1)  $(-10)^{\text{zero}} = \dots\dots\dots$  (a) -10 (b) -1 (c) 1 (d) 10
- 2)  $(-19)^0 + (19)^0 = \dots\dots\dots$  (-1, 0, 2, -2)
- 3)  $-(3)^0 + 1 = \dots\dots\dots$  (-1, 0, 2, -2)
- 4)  $(-3)^2 = \dots\dots\dots$  (a) -9 (b) -6 (c) 6 (d) 9
- 5)  $(-2)^2 = \dots\dots\dots$  ((-2), (-4), (-32), 2<sup>2</sup>)
- 6)  $(-5)^2 < \dots\dots\dots$  (a)  $(-2)^5$  (b)  $-5 \times 2$  (c)  $-5 \times (-2)$  (d) 2<sup>5</sup>
- 7)  $(-1)^3 + 1^3 = \dots\dots\dots$  (a) zero (b) 21 (c) -1 (d) 2
- 8)  $2^3 + 2^2 = \dots\dots\dots$  (a) 10 (b) 12 (c) 32 (d) 64
- 9)  $2^3 \times 2^2 = \dots\dots\dots$  (a) 2<sup>6</sup> (b) 4<sup>9</sup> (c) 4<sup>6</sup> (d) 2<sup>5</sup>
- 10)  $2^6 \times 2^2 = \dots\dots\dots$  (a) 2<sup>3</sup> (b) 2<sup>4</sup> (c) 2<sup>8</sup> (d) 2<sup>12</sup>
- 11)  $2^3 \div 2^2 = \dots\dots\dots$  (a) 2 (b) 8 (c) 16 (d) 32
- 12)  $3^7 \div 3^7 = \dots\dots\dots$  (a) zero (b) 1 (c) 3 (d) 7
- 13)  $(2)^6 \div (-2)^4 = \dots\dots\dots$  (a)  $-2^{10}$  (b)  $-2^2$  (c) 2<sup>2</sup> (d) 2<sup>10</sup>
- 14)  $3^2 + 3^2 + 3^2 = \dots\dots\dots$  (a) 2<sup>6</sup> (b) 4<sup>6</sup> (c) 3<sup>3</sup> (d) 2<sup>9</sup>
- 15)  $3^5 + 3^5 + 3^5 = \dots\dots\dots$  (3<sup>15</sup>, 3<sup>6</sup>, 9<sup>5</sup>)
- 16) Double of the number 2<sup>10</sup> = ..... (2<sup>20</sup>, 4<sup>10</sup>, 4<sup>20</sup>, 2<sup>11</sup>)



- 17) Quarter of  $4^{20} = \dots\dots\dots$  ( $4^{10}$ ,  $2^{20}$ ,  $4^{19}$ )
- 18) Quarter of  $2^{12} = \dots\dots\dots$  ( $2^3$ ,  $2^{10}$ ,  $4^{20}$ ,  $2^8$ )
- 19)  $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \dots\dots\dots$  ((a)  $\frac{1}{32}$  (b)  $\frac{1}{64}$  (c)  $\frac{1}{128}$  (d)  $\frac{1}{256}$ )
- 20) area of the circle =  $\dots\dots\dots$  ( $\pi r$ ,  $\pi r^2$ ,  $2 \pi r$ ,  $2 \pi r^2$ )
- 21) A circle its diameter 10 cm then its area =  $\dots\dots\dots \text{cm}^2$   
( $10 \pi$ ,  $5 \pi$ ,  $25 \pi$ ,  $15 \pi$ )
- 22) A circle its diameter length 8 cm , then its area =  $\dots\dots\dots \text{cm}^2$   
( $8 \pi$ ,  $64 \pi$ ,  $16 \pi^2$ ,  $16 \pi$ )
- 23) The area of the circle whose diameter length 7 cm =  $\dots\dots\dots \text{cm}^2$   
( $49 \pi$ ,  $49 \pi^2$ ,  $14 \pi$ ,  $12.25 \pi$ )
- 24) A circle its area is  $616 \text{ cm}^2$  then its radius length is  $\dots\dots\dots \text{cm}$   
(14, 41, 15, 51)
- 25) A circle its circumference is 44 cm then its diameter length is  $\dots\dots\dots \text{cm}$   
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[21cm , 25cm , 50cm , 2dm]
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(3 , 4 , 5 , 6)



- 28) If the perimeter of one face of a cube = 8cm then its total area = ----  $cm^2$   
(a) 30 (b) 24 (c) 54 (d) 60
- 29) The sum of lateral surface area and total surface area of cube  
=  $250cm^2$  Then its volume = .....  $cm^3$  [25 , 125 , 150 , 100]
- 30) The T.S.A. of cube is  $216 cm^2$ , then area of one face = .....  $cm^2$   
(a) 63 (b) 36 (c) 45 (d) 54
- 31) In a cube the ratio between face area, lateral surface area, total  
surface area = .... : .... : .... [1:2:3, 1:2:6 , 1:4:6 , 2:3:1 ]
- 32) The ratio between perimeter of one face of a cube and the sum of all  
edges = .... : .... [ 2:3 , 1:3 , 3:2 , 3:1 ]
- 33) The ratio between number of edges and number of vertices and  
number of faces of cube = ..... [8:6:12 , 4:6:3 , 6:4:3 , 3:4:6 ]
- 34) Area of each face of a cube = ..... total area ( $\frac{1}{2}$  ,  $\frac{1}{4}$  ,  $\frac{1}{6}$  ,  $\frac{1}{8}$  )
- 35) The lateral area of the cuboid with length = 3cm , width = 2cm and  
height = 4cm equals -----  $cm^2$  (a) 20 (b) 24 (c) 40 (d) 52
- 36) A cuboid its total area is  $140 cm^2$  and lateral area is  $100 cm^2$  then its  
base area = .....  $cm^2$  (40 , 30 , 20 , 10)



37) A case in the shape of a cube without lid. Its lateral area =  $20 \text{ cm}^2$ , then the area of the faces of the cube equals .....

- (a)  $5 \text{ cm}^2$  (b)  $25 \text{ cm}^2$  (c)  $30 \text{ cm}^2$  (d)  $40 \text{ cm}^2$

38) If the perimeter of one face of a cube equals  $12 \text{ cm}$ . then its lateral equals.....

- (a)  $27 \text{ cm}^2$  (b)  $36 \text{ cm}^2$  (c)  $48 \text{ cm}^2$  (d)  $54 \text{ cm}^2$

39) The height of a cuboid whose total area is  $400 \text{ cm}^2$  and its base is squared form of the side length =  $10 \text{ cm}$  equals .....

- (a)  $4 \text{ cm}$  (b)  $5 \text{ cm}$  (c)  $10 \text{ cm}$  (d)  $12 \text{ cm}$

40) If each dimension of a cuboid is doubled in length then, the ratio between its total area and the new total area equals.....

- (a)  $1 : 2$  (b)  $1 : 4$  (c)  $1 : 8$  (d)  $1 : 16$



## summary

### Circle

$$\text{Area} = \pi r^2$$

$$r = \sqrt{A \div \pi}$$

$$\text{Circumference} = 2 \pi r = D \pi$$

$$r = C \div (2 \pi)$$

$$r = \frac{\text{Diameter}}{2}$$

$$\text{Volume of the cube} = s \times s \times s$$

$$\text{volume of cuboid} = L \times W \times H$$

- 1) The equation is a mathematical sentence includes equality relation between them.
- 2) The Inequality is a mathematical sentence includes a sign on inequality between them.
- 3) The substitution set is to which the unknown of the symbols in the equation.
- 4) The solution set is the set of elements which verify
- 5) The ratio between L.S.A : T.S.A for the cube is 2 : 3

In the cube :

$$\text{L.S.A} = \text{area of 1 face} \times 4 \quad \text{or } s \times s \times 4$$

$$\text{Area 1 face} = \frac{\text{L.S.A}}{4}$$

$$\text{T.S.A} = \text{area of 1 face} \times 6 \quad \text{or } s \times s \times 6$$

$$\text{Area 1 face} = \frac{\text{T.S.A}}{6}$$

In the cuboid :

$$\text{a) L.S.A} = \text{Perimeter of base} \times \text{height}$$

$$\text{b) T.S.A} = \text{L.S.A} + (\text{area of base} \times 2) \text{ with a lid}$$

$$\text{c) T.S.A} = \text{L.S.A} + (\text{area of base}) \text{ without a lid}$$

$$\text{d) Perimeter of base} = \frac{\text{L.S.A}}{H}$$

$$\text{e) Height} = \frac{\text{L.S.A}}{\text{perimeter of base}}$$

N	Choose the correct answer from those given :
1	The sum of the edge length of a cube equals 108 cm its lateral area =..... ( 124 , 86 , 27 , 324 )
2	$\frac{5^7 \times (-5)^2}{5^6} = \dots\dots\dots$ ( 124 , 86 , 125 , 324 )
3	If: $X = 2$ and $Y = -5$ Then the numerical value of ( $3X + 2Y$ ) is ..... (A) $-4$ (B) $4$ (C) $14$ (D) $-3$
4	$4 + (-6) > \dots\dots\dots$ ( 2 or 0 or $-2$ or $-4$ )
5	$3^2 + 3^2 + 3^2 = \dots\dots\dots$ ( $2^6$ or $4^6$ or $3^3$ or $2^9$ )
	$2^3 \div 2^2 = \dots\dots\dots$ ( 2 or 8 or 16 or 32 )
6	$(-3)^3 + (-3)^2 = \dots\dots\dots$ ( $(-3)^5$ or $(-3)^6$ or $(-18)$ or $18$ )
7	$(-19)^0 + (19)^0 = \dots\dots\dots$ ( $-1$ or zero or $1$ or $2$ )
8	$(-1)^{104} + (-1)^{103} = \dots\dots\dots$ ( zero or $-1$ or $1$ or $2$ )
9	$\frac{6^2 \times 6^3}{6^4} = \dots\dots\dots$ ( 1 or 12 or $6^5$ or 6 )
10	If : $x = 1$ , $y = -2$ , then the negative number from the following is ..... ( $x + y^2$ or $x^2 - y$ or $x^2 + y$ or $x^2 + y^2$ )
11	The equation : $x + 3 = 4$ is of the ..... degree. ( first or second or third or fourth )
N	(3)

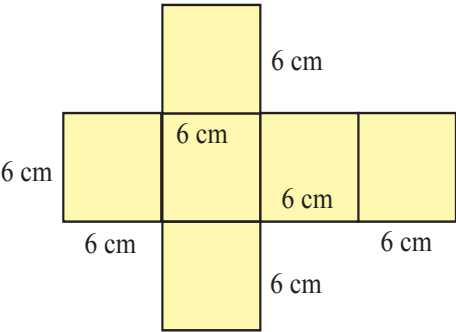
N	Choose the correct answer from those given :
1	The equation : $4x^3 - x = 29$ is of ..... degree. ( first <b>or</b> second <b>or</b> third <b>or</b> fourth )
2	If : $x + 2 = 9$ , $x \in \mathbb{Z}$ , then the solution set is ..... ( {11} <b>or</b> {-7} <b>or</b> {7} <b>or</b> $\emptyset$ )
3	The solution set for the equation $x - 1 = 3$ in $\mathbb{Z}$ is ..... ( {3} <b>or</b> {-1} <b>or</b> {4} <b>or</b> {-3} )
4	The S.S. in $\mathbb{N}$ of the equation : $2x - 1 = 5$ is ..... ( {3} <b>or</b> {-3} <b>or</b> {2} <b>or</b> $\{\frac{1}{2}\}$ )
5	If : $2x + 4 = 14$ , then $x =$ ..... ( -2 <b>or</b> 2 <b>or</b> 3 <b>or</b> 5 )
6	The equation : $x^2 + 3x = 4$ is of ..... degree. ( first <b>or</b> second <b>or</b> third <b>or</b> fourth )
7	If : $x + 3 = 8$ such that $x \in \mathbb{Z}^-$ , then the solution set of the equation is ..... ( {-3} <b>or</b> {5} <b>or</b> {-5} <b>or</b> $\emptyset$ )
8	The solution set of the equation : $2x - 1 = -5$ in $\mathbb{Z}$ is ..... ( {-2} <b>or</b> {2} <b>or</b> {-3} <b>or</b> {3} )
9	If : $x + 2 =  -4 $ , then $x =$ ..... ( -6 <b>or</b> -2 <b>or</b> 2 <b>or</b> 6 )
10	If : $3x + 9 = \text{zero}$ , then the solution set of the equation at $\mathbb{Z}$ is ..... ( {9} <b>or</b> {-9} <b>or</b> {3} <b>or</b> {-3} )
11	If : $x - 3 < 1$ , then $x$ can be ..... ( (-1) <b>or</b> 4 <b>or</b> 5 <b>or</b> 6 )
12	All the following numbers satisfy the inequality : $x > -3$ except ..... ( zero <b>or</b> -1 <b>or</b> -2 <b>or</b> -4 )
13	The number which satisfies the inequality : $x > -2$ is ..... ( -1 <b>or</b> -2 <b>or</b> -3 <b>or</b> -4 )
12	If : $2x + 5 > 3$ , $x \in \mathbb{Z}$ , then the solution set of the inequality is ..... ( $\mathbb{Z}^+$ <b>or</b> $\mathbb{N}$ <b>or</b> $\mathbb{Z}^-$ <b>or</b> $\mathbb{N} - \{0\}$ )
N	(4)

N	Choose the correct answer from those given :
1	The set of solution of the inequality : $-1 \leq x < 1$ in $\mathbb{Z}$ is ..... ( $\{-1, 0\}$ or $\{0, 1\}$ or $\{0\}$ or $\{1\}$ )
2	The set of solution of the inequality : $-2 < x \leq \text{zero}$ in $\mathbb{Z}$ is ..... ( $\{-2, 0\}$ or $\{-1, 0\}$ or $\{0\}$ or $\{-2\}$ )
3	The solution set of the inequality $x > 0$ is ..... ( $\mathbb{Z}$ or $\mathbb{Z}^+$ or $\mathbb{Z}^-$ or $\mathbb{N}$ )
4	The value of expression $3 \times (-5) - (2 \times 3)^2 \div 4 = \dots\dots\dots$ ( -31 , -16 , $-\frac{15}{12}$ , -24 )
5	$2^3 \times 2^5 = \dots\dots\dots$ ( $2^8$ , $2^{15}$ , $4^8$ , $4^{15}$ )
6	$(-2)^4 + (-3)^3 = \dots\dots\dots$ (A) -43 (B) 43 (C) -11 (D) 11
7	$\frac{1}{7^5} \times 7^5 \dots\dots\dots 1$ (A) > (B) < (C) $\leq$ (D) =
8	If $X = 10$ , $Y = -2$ , then the negative number in the following is a) $x^2 + y$ b) $x + y^2$ c) $x^2 - y$ d) $xy$
9	The area of the circle's surface = ..... ( $\pi r$ or $\pi r^2$ or $2\pi r$ or $2\pi r^2$ )
10	The circumference of the circle = ..... ( $\pi r$ or $2\pi r$ or $\pi r^2$ or $2\pi r^2$ )
11	The surface area of the circle of radius 1 cm. long = ..... $\text{cm}^2$ ( $\pi r$ or $2\pi r^2$ or $2\pi r$ or $\pi$ )
12	The area of the circle in which the length of its radius is 7 cm. = ..... (where $\pi = \frac{22}{7}$ ) ( $49 \text{ cm}^2$ or $145 \text{ cm}^2$ or $154 \text{ cm}^2$ or $44 \text{ cm}^2$ )
N	(5)

N	Choose the correct answer from those given :
1	A circle its diameter is 6 cm. , then its surface area = ..... $\text{cm}^2$ ( $3\pi$ or $6\pi$ or $9\pi$ or $36\pi$ )
2	The lateral area of the cube = area of one face $\times$ ..... ( 2 or 4 or 6 or 8 )
3	The area of one face of a cube = ..... its total area. ( $\frac{1}{2}$ or $\frac{1}{4}$ or $\frac{1}{6}$ or $\frac{1}{8}$ )
4	A cube of edge length 2 cm. its total area = ..... $\text{cm}^2$ . ( 8 or 20 or 24 or 18 )
5	If the edge length of a cube is 3 cm. , then its lateral surface area = ..... $\text{cm}^2$ . ( 12 or 15 or 36 or 54 )
6	If the perimeter of one face of a cube = 4 cm. , then its total area = ..... $\text{cm}^2$ . ( 3 or 4 or 5 or 6 )
7	If the area of base of cube is $49 \text{ cm}^2$ , then the lateral area equals ..... $\text{cm}^2$ ( 392 or 294 or 196 or 98 )
8	A cube , its lateral area = $36 \text{ cm}^2$ , then its volume = ..... $\text{cm}^3$ ( 27 or -27 or -1 or $\emptyset$ )
9	If the total area of cube is $24 \text{ cm}^2$ , then its volume = ..... $\text{cm}^3$ ( 8 or 2 or 4 or 16 )
10	The lateral area of the cuboid = the perimeter of the base $\times$ ..... ( height or width or length or volume )
11	The lateral area of the cuboid with length 3 cm. , width 2 cm. and height 4 cm. = ..... $\text{cm}^2$ ( 20 or 24 or 40 or 52 )
12	The height of a cuboid whose lateral area $120 \text{ cm}^2$ and the dimensions of its base 4 cm. and 6 cm. equals ..... cm. ( 2.5 or 5 or 6 or 12 )
N	(6)

N	Complete the following :
1	The diameter length of a circle is 14cm so its area is .....
2	$(-11)^{\text{zero}} + (11)^{\text{zero}} = \dots\dots\dots$ $(-1)^{10} + (-1)^{11} = \dots\dots\dots$
3	$2^3 + 2^2 = \dots\dots\dots$
4	2 , 3 , 5 , 8 , 13 , ..... , ..... (in the same pattern)
5	- 2 , - 4 , - 6 , - 8 , ..... , ..... (in the same pattern)
6	1 , 1 , 2 , 3 , 5 , 8 , ..... , ..... (in the same pattern)
7	3 , - 6 , 12 , - 24 , ..... , ..... - 7 , - 4 , - 1 , ..... , .....
8	$\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{8}$ , $\frac{1}{16}$ , ..... (in the same pattern)
9	The equation is a mathematical sentence includes ..... relation between two sides.
10	The solution set of the equation $2x - 1 = -1$ is ..... if the substitution set is $\{0, 1, 2, 3\}$
11	If $3x - 3 = 12$ , then $x = \dots\dots\dots$ 5
12	If $(x + 1)$ is the additive inverse of $(-2)$ , then $x = \dots\dots\dots$
13	If : $ b - 1  = 7$ , then : $b = \dots\dots\dots$ or $b = \dots\dots\dots$
14	The greatest integer number which satisfies the inequality : $x < -3$ is .....
15	The previous integer for number $(x - 1)$ is .....
N	(7)

N	Complete the following :
1	2 , 8 , 32 , 128 , ..... , .....
2	$\frac{(-7)^5 \times (-7)^2}{(-7)^6} = \dots\dots\dots$
3	$\frac{5^6 \times (-5)^7}{5^9} = \dots\dots\dots$
4	If $x + 3 =  -7 $ then $x = \dots\dots\dots$
5	The solution set of the equation $4x + 1 = 17$ where $x \in N$
6	A cube its edge is 4cm the total area = ..... $\text{cm}^2$
7	The number of edges of a cube = ..... edges.
8	The lateral area of the cube = ..... $\times$ .....
9	The sum of the edges length of a cube equals 72 cm. , then the length of the edge equals ..... cm.
10	The area of one face of a cube is $4 \text{ cm}^2$ , then its lateral area is ..... $\text{cm}^2$
11	A cube whose total area is $150 \text{ cm}^2$ , then its edge length = ..... cm FACE AREA = $150/6=25$
12	A cube of total area $600 \text{ cm}^2$ , then the length of its edge is ..... cm.
13	If the volume of a cube is $1000 \text{ cm}^3$ , then its total area = ..... $\text{cm}^2$
N	(8)

N	Complete the following :
1	If: $x = 4$ , $y = -5$ , then( $2x + 3y$ ) = .....
2	$-18$ , $-12$ , $-6$ , ..... , .....
3	$1$ , $4$ , $9$ , $16$ , $25$ , ..... , .....
4	The ratio between the area of one face of a cube and its lateral area = .....
5	The lateral area of cuboid which has a squared base of side length $8\text{ cm}$ and its height is $4\text{ cm}$ = .....
6	If the perimeter of one face of cube = $12\text{ cm}$ , then its total area = .....
7	$(-1)^8 + (-1)^9 =$ .....
8	$\frac{1}{3}$ , $\frac{1}{6}$ , $\frac{1}{12}$ , ..... , .....
9	$2$ , $8$ , $32$ , $128$ , ..... , .....
10	$-6$ , $-4$ , $-2$ , ..... , ..... , .....
11	<p>When folding the opposite shape,</p> <ul style="list-style-type: none"> <li>- The solid formed is .....</li> <li>- The lateral area of this solid is .....</li> <li>- The total area of this solid is .....</li> </ul> 
12	If the lateral area of a cube is $36\text{ cm}^2$ . Find its total area.
N	(9)

Choose the correct answer from those given :

1

**the S.S. in  $\mathbb{N}$  of the equation :  $8x = 32$**

**( { 4 } or { -1 , 0 } or { 0 } or { -2 } )**

2

**the solution set of the equation in  $\mathbb{Z}$  :  $2x + 3 = 9$**

**( { 4 } or { 3 } or { 0 } or { -2 } )**

3

**Solve the following equation in  $\mathbb{Z}$  :  $3x + 2 = -19$**

**( { 4 } or { -7 } or { 0 } or { -2 } )**

4

**Solve the following equation :  $(x + 3) + x = 27$  , where  $x \in \mathbb{Z}$**

**( { 12 } or { -7 } or { 0 } or { -2 } )**

5

**Find the solution set of the equation :  $5x + 3 = 3x + 5$  in  $\mathbb{Z}$**

**( { 12 } or { -7 } or { 0 } or { 1 } )**

6

**the S.S of  $2(x + 3) = -2$  where  $x \in \mathbb{N}$**

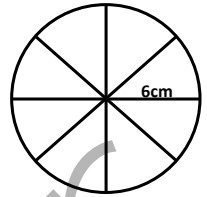
**( { 11 } or { -7 } or { 7 } or  $\emptyset$  )**

7

If the perimeter of one face of a cube equals 20 cm then its total area =.....  
( 124 , 127 , 150 , 199 )

8

**In the opposite figure** A circle M of radius 6cm is divided in to 8 circular sectors equal in area Find the area of one sector  
( 124 , 14 , 14.14 , 199 )



9

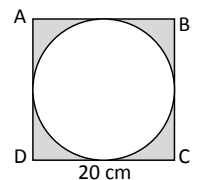
The perimeter of the base of cuboid is 32 its height = 10cm , the length of its base = 9cm THEN ITIS Total area. =.....  
( 124 , 446 , 14.14 , 320 )

10

the result of  $\frac{(-3)^{10} \times (3)^5}{3^{12}} = \dots\dots\dots$   
( 124 , 446 , 27 , 320 )

11

**In the opposite figure :** ABCD is a square of side length 20cm. find the area of the shaded part in  $\text{cm}^2$  (  $\pi = 3.14$  )  
( 124 , 86 , 27 , 320 )



the Solution set for in  $\mathbb{Z}$        $3 - 2X = 17$

12

(  $\{11\}$  or  $\{-7\}$  or  $\{7\}$  or  $\emptyset$  )

The solution set of equation  $3x = -12$  in  $\mathbb{Z}_+$  is .....

13

(  $\{11\}$  or  $\{-7\}$  or  $\{7\}$  or  $\emptyset$  )

the value of  $\frac{3^4 \times (-3)^5}{3^7} = \dots\dots\dots$

14

( 12 , 446 , -9 , 320 )

Number when added to triple output become 72 THEN the NUMBER = .....

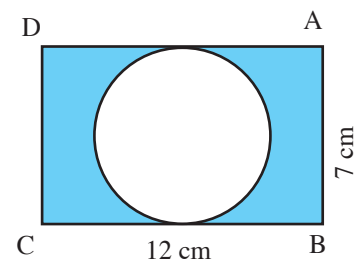
15

( 12 , 446 , -9 , 18 )

In the opposite figure, ABCD is a rectangle its length 12 cm, its width 7 cm . A circle is drawn to touch the sides  $\overline{AD}$  and  $\overline{BC}$ . the area of the shaded part = .....

16

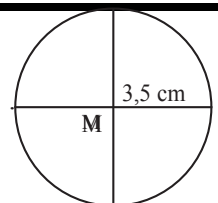
( 12.5 , 44 , 45 , 45.5 )



In the opposite figure, a circle M of radius 3.5 cm, is divided into four equal circular sectors. THEN the surface area of one sector where  $\pi \approx \frac{22}{7}$  = .....

17

( 9.625 , 8.25 , 45 , 45.5 )



18	<p>The total area of a cube is <math>486 \text{ cm}^2</math> . THEN the area of one face and its lateral area.=.....</p> <p>( 9.625 , 324 , 45 , 45.5 )</p>
19	<p>A cuboid its length is 6 cm, its width is 4 cm, and its height is 8 cm. THEN its lateral area =.....</p> <p>( 160 , 324 , 45 , 688 )</p>
20	<p>A room in the form of cuboid its inner dimensions are : 5 m length, 3.5m width and 3 m hight. It is wanted to paint its lateral walls. The cost price of one square meter is LE 9. THEN the required cost. =.....</p> <p>( 160 , 324 , 45 , 459 )</p>
21	<p>If : <math>a &gt; b</math> , <math>c</math> is a negative number , then <math>ac</math> ..... <math>bc</math></p> <p>(a) <math>&lt;</math> (b) <math>\geq</math> (c) <math>&gt;</math> (d) <math>=</math></p>
22	<p>The age of Ahmed now is <math>x</math> years , then his age 5 years ago is ..... years.</p> <p>(a) <math>5x</math> (b) <math>5 + x</math> (c) <math>5 - x</math> (d) <math>x - 5</math></p>
23	<p>Ahmed's age 3 years ago was <math>x</math> , then his age now is ..... years.</p> <p>(a) <math>x + 3</math> (b) <math>x - 3</math> (c) <math>3 - x</math> (d) <math>3x</math></p>
24	<p>The solution set of the equation : <math>2x + 1 = -3</math> in <math>\mathbb{N}</math> is .....</p> <p>(a) <math>\{1\}</math> (b) <math>\{2\}</math> (c) <math>\{4\}</math> (d) <math>\emptyset</math></p>
25	<p>If : <math>5x = 35</math> , then <math>2x + 1 =</math> .....</p> <p>(a) 7 (b) 8 (c) 15 (d) 71</p>
(13)	

# MATHEMATICS DEPARTMENT

## GRADE 6

### APRIL TEST MODEL 1

Choose the correct answer from those given :

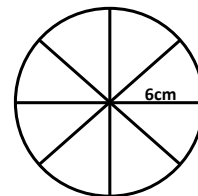
1  $3^2 + 3^2 + 3^2 = \dots\dots\dots$  (  $2^6$  or  $4^6$  or  $3^3$  or  $2^9$  )

2 If :  $x = 1$  ,  $y = -2$  , then the negative number from the following is  $\dots\dots\dots$   
(  $x + y^2$  or  $x^2 - y$  or  $x^2 + y$  or  $x^2 + y^2$  )

3 The equation :  $x + 3 = 4$  is of the  $\dots\dots\dots$  degree.  
( first or second or third or fourth )

4 The set of solution of the inequality :  $-2 < x \leq \text{zero}$  in  $\mathbb{Z}$  is  $\dots\dots\dots$   
(  $\{-2, 0\}$  or  $\{-1, 0\}$  or  $\{0\}$  or  $\{-2\}$  )

5 In the opposite figure A circle M of radius 6cm is divided in to 8 circular sectors equal in area Find the area of one sector  
( 124 , 14 , 14.14 , 199 )



6 If the perimeter of one face of a cube equals 20 cm then its total area = $\dots\dots\dots$   
( 124 , 127 , 150 , 199 )

7 The value of expression  $3 \times (-5) - (2 \times 3)^2 \div 4 = \dots\dots\dots$   
( -31 , -16 ,  $-\frac{15}{12}$  , -24 )

NAME /  $\dots\dots\dots$

CLASS /  $\dots\dots\dots$

# MATHEMATICS DEPARTMENT

## GRADE 6

### APRIL TEST MODEL 2

Choose the correct answer from those given :

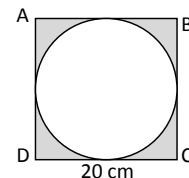
1  $(-1)^{104} + (-1)^{103} = \dots\dots\dots$  ( zero or -1 or 1 or 2 )

2 The equation :  $4x^3 - x = 29$  is of  $\dots\dots\dots$  degree.  
( first or second or third or fourth )

3 If :  $x + 2 = 9$  ,  $x \in \mathbb{Z}$  , then the solution set is  $\dots\dots\dots$   
( {11} or {-7} or {7} or  $\emptyset$  )

4 The set of solution of the inequality :  $-1 \leq x < 1$  in  $\mathbb{Z}$  is  $\dots\dots\dots$   
( {-1, 0} or {0, 1} or {0} or {1} )

5 In the opposite figure : ABCD is a square of side length 20cm. find the area of the shaded part in  $\text{cm}^2$  (  $\pi = 3.14$  )  
( 124 , 86 , 27 , 320 )



6 The perimeter of the base of cuboid is 32 its height = 10cm , the length of its base = 9cm THEN ITIS Total area. = $\dots\dots\dots$   
( 124 , 446 , 14.14 , 320 )

7 If  $X = 10$  ,  $Y = -2$  , then the negative number in the following is  
a)  $x^2 + y$       b)  $x + y^2$       c)  $x^2 - y$       d)  $xy$

NAME / .....

CLASS / .....

# MATHEMATICS DEPARTMENT

## GRADE 6

### APRIL TEST MODEL3

Choose the correct answer from those given :

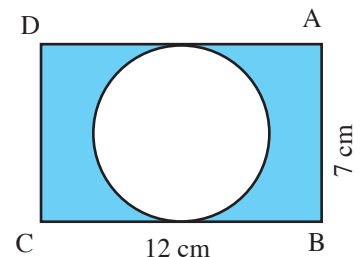
1  $(-19)^0 + (19)^0 = \dots\dots\dots$  ( - 1 or zero or 1 or 2 )

2 The solution set for the equation  $x - 1 = 3$  in  $\mathbb{Z}$  is  $\dots\dots\dots$   
( {3} or { - 1 } or {4} or { - 3 } )

3 The equation :  $x^2 + 3x = 4$  is of  $\dots\dots\dots$  degree.  
( first or second or third or fourth )

4 If :  $2x + 5 > 3$  ,  $x \in \mathbb{Z}$  , then the solution set of the inequality is  $\dots\dots\dots$   
(  $\mathbb{Z}^+$  or  $\mathbb{N}$  or  $\mathbb{Z}^-$  or  $\mathbb{N} - \{0\}$  )

5 In the opposite figure, ABCD is a rectangle its length 12 cm, its width 7 cm . A circle is drawn to touch the sides  $\overline{AD}$  and  $\overline{BC}$ . the area of the shaded part =  $\dots\dots\dots$  where (  $\pi \approx \frac{22}{7}$  )  
( 12.5 , 44 , 45 , 45.5 )



6 The height of a cuboid whose lateral area  $120 \text{ cm}^2$  and the dimensions of its base 4 cm. and 6 cm. equals  $\dots\dots\dots$  cm.  
( 2.5 or 5 or 6 or 12 )

7  $2^3 \times 2^5 = \dots\dots\dots$  (  $2^8$  ,  $2^{15}$  ,  $4^8$  ,  $4^{15}$  )

NAME / .....

CLASS / .....

# MATHEMATICS DEPARTMENT

## GRADE 6

## APRIL TEST MODEL 4

Choose the correct answer from those given :

1  $(-3)^3 + (-3)^2 = \dots\dots\dots$  (  $(-3)^5$  or  $(-3)^6$  or  $(-18)$  or  $18$  )

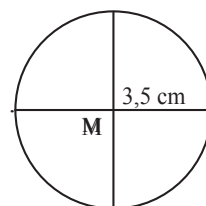
2 If :  $x + 3 = 8$  such that  $x \in \mathbb{Z}^-$  , then the solution set of the equation is  
 $\dots\dots\dots$  (  $\{-3\}$  or  $\{5\}$  or  $\{-5\}$  or  $\emptyset$  )

3 The number which satisfies the inequality :  $x > -2$  is  $\dots\dots\dots$   
 $\dots\dots\dots$  (  $-1$  or  $-2$  or  $-3$  or  $-4$  )

4 the S.S of  $2(x + 3) = -2$  where  $x \in N$   
 $\dots\dots\dots$  (  $\{11\}$  or  $\{-7\}$  or  $\{7\}$  or  $\emptyset$  )

5 The lateral area of the cuboid = the perimeter of the base  $\times \dots\dots\dots$   
 $\dots\dots\dots$  ( height or width or length or volume )

6 In the opposite figure, a circle M of radius 3.5 cm, is divided into four equal circular sectors. THEN the surface area of one sector where  $\pi \approx \frac{22}{7}$   
 $= \dots\dots\dots \text{ cm}^2$  ( 9.625 , 8.25 , 45 , 45.5 )



7 the S.S. in  $N$  of the equation :  $8x = 32$   
 $\dots\dots\dots$  (  $\{ 4 \}$  or  $\{-1, 0\}$  or  $\{0\}$  or  $\{-2\}$  )

NAME / .....

CLASS / .....

# MATHEMATICS DEPARTMENT

## GRADE 6

### APRIL TEST MODEL 5

Choose the correct answer from those given :

1  $2^3 \div 2^2 = \dots\dots\dots$  ( 2 or 8 or 16 or 32 )

2 If :  $3x + 9 = \text{zero}$  , then the solution set of the equation at  $\mathbb{Z}$  is .....  
( {9} or { -9 } or {3} or { -3 } )

3 If :  $x - 3 < 1$  , then  $x$  can be ..... ( (-1) or 4 or 5 or 6 )

4 All the following numbers satisfy the inequality :  $x > -3$  except .....  
( zero or -1 or -2 or -4 )

5 If the perimeter of one face of a cube equals 20 cm then its total area =.....  
( 124 , 127 , 150 , 199 )

6 A circle its diameter is 6 cm. , then its surface area = .....  $\text{cm}^2$   
(  $3\pi$  or  $6\pi$  or  $9\pi$  or  $36\pi$  )

7 the solution set of the equation :  $5x + 3 = 3x + 5$  in  $\mathbb{Z}$   
( { 12 } or { -7 } or {0} or { 1 } )

NAME / .....

CLASS / .....

## Remember that

- $(-a)^{\text{even}} = (a)^{\text{even}} \rightarrow (-3)^4 = (3)^4$
- $(-a)^{\text{odd}} = -(a)^{\text{odd}} \rightarrow (-3)^5 = -(3)^5$
- $(-1)^{\text{even}} = 1 \rightarrow (-1)^{100} = 1$  ,  $(-1)^{\text{odd}} = -1 \rightarrow (-1)^{99} = -1$
- $(a)^{\text{zero}} = 1$ , where  $x \neq 0 \rightarrow (2)^0 = 1$  ,  $(-5)^0 = 1$
- $(-3)^0 + (3)^0 = 2$
- $(-1)^{99} + (-1)^{100} = 0$
- **Circumference of circle** =  $2\pi r$  or  $\pi d$
- $r = \frac{c.f}{2\pi}$
- **Area of circle** =  $\pi r^2$
- **L.A of a cube** = the area of 1 face  $\times 4 = e \times e \times 4$
- **T.A of a cube** = the area of 1 face  $\times 6 = e \times e \times 6$
- **area of 1 face** =  $\frac{L.A}{4} \rightarrow e = \sqrt{\frac{L.A}{4}}$
- **area of 1 face** =  $\frac{T.A}{6} \rightarrow e = \sqrt{\frac{T.A}{6}}$
- **area of 1 face : L.A** =  $1 : 4$  , **Area of 1 face : T.A** =  $1 : 6$
- **L.A : T.A** =  $4 : 6 = 2 : 3$  , **T.A : L.A** =  $6 : 4 = 3 : 2$
- **L.A of cuboid** = **perimeter of base**  $\times$  **height**
- **T.A of cuboid** = **L.S.A** +  $(2 \times \text{base area})$
- **T.A of cuboid without a lid** = **L.S.A** + **area of base**
- **Perimeter of base** = **L.S.A**  $\div$  **height**
- **Height** = **L.S.A**  $\div$  **perimeter of base**
- **Area of base** =  $\frac{T.A - L.A}{2}$

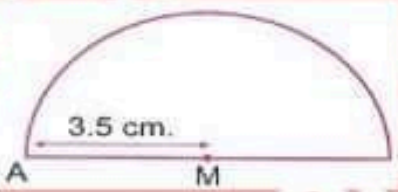
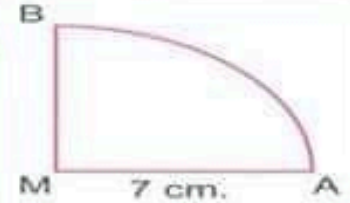
# Choose the correct answer

1	The surface area of the circle = .....	( $\pi r$ , $\pi r^2$ , $2\pi r$ , $2\pi r^2$ )
2	$5 \times 5^2 = \dots\dots\dots$	( $25^2$ , $25^3$ , $5^2$ , $5^3$ )
3	$2^6 \times 2^2 \div 2^7 = \dots\dots\dots$	( $2^8$ , $2^{12}$ , $2^5$ , $2$ )
4	If the total area of a cube is $24 \text{ cm}^2$ , then its volume = ..... $\text{cm}^3$	( 8 , 2 , 4 , 16 )
5	$(-3)^3 + (-3)^2 = \dots\dots\dots$	( $(-3)^5$ , $(-3)^6$ , -18 , 18 )
6	the additive inverse of $(-1)^{99}$ is .....	( 1 , 0 , -1 , 2 )
7	$\frac{7^5}{7^4} + 1 = \dots\dots\dots$	( 7 , 1 , 8 , $7^2$ )
8	A cube of total area $150 \text{ cm}^2$ , then the length of its edge is ..... Cm.	( 5 , 6 , 15 , 10 )
9	$(-3)^2 < \dots\dots\dots$	( $(1-2)^3$ , $3^3$ , $2^3$ , $(-3)^3$ )
10	A cube its lateral area = $36 \text{ cm}^2$ , then its volume = ..... $\text{cm}^3$	( 27 , -27 , -1 )
11	$9^2 \dots\dots\dots (-3)^4$	( $<$ , $>$ , $=$ )
12	A cube shaped box , without a lid , has ..... Faces	( 4 , 5 , 6 , 8 )
13	A cube of side length 4 cm. , then its lateral area = ..... $\text{cm}^2$	( 32 , 64 , 84 , 96 )
14	$2^{11} \div 2^8 = \dots\dots\dots$	( 2 , 14 , 8 , 16 )
15	$(-5)^2 \times (2)^2 = \dots\dots\dots$	( $(10)^0$ , 10 , $(10)^2$ , $(10)^3$ )
16	The lateral area of a cube is $324 \text{ cm}^2$ , then area of one face = .....	( $54 \text{ cm}^2$ , $81 \text{ cm}^2$ , $54 \text{ cm}$ , $81 \text{ cm}$ )
17	$-4^2 \dots\dots\dots 16$	( $<$ , $>$ , $=$ , $\leq$ )
18	$(-4)^2 \dots\dots\dots 16$	( $<$ , $>$ , $=$ , $\leq$ )
19	the area of the circle = ..... $\times \pi$	( $r$ , $2r$ , $r^2$ , $r+2$ )

20	the total of cube = ..... $\times$ area of one face	( 6 , 2 , 4 , 3 )
21	The additive inverse of $(-5)^2$ is .....	( 25 , 5 , - 5 , - 25 )
22	If the area of one face of a cube is $9 \text{ cm}^2$ , then its total surface area = ..... $\text{cm}^2$	( 36 , 81 , 54 , 486 )
23	$2^3 + 2^2 = \dots\dots\dots$	( 10 , 12 , 32 , 64 )
24	the number of faces of the cube = ..... faces	( 6 , 8 , 12 , 4 )
25	A cube , its volume is $1000 \text{ cm}^3$ , then its lateral area = ..... $\text{cm}^2$	( 600 , 500 , 400 , 200 )
26	$(-11)^0 \dots\dots\dots N$	( $\in$ or $\subset$ or $\notin$ or $\not\subset$ )
27	A circle its circumference is 88 cm , then its radius = ..... cm. ( $\pi = \frac{22}{7}$ )	( 28 , 24 , 44 , 14 )
28	A cube without a lid of edge length 3 cm., then its total area = .....	( 54 , 45 , 36 , 9 )
29	the lateral area of the cube = area of one face $\times$ .....	( 6 , 5 , 4 , 3 )
30	A circle with radius length = 1 cm., then its area = ..... $\text{cm}^2$	( $\pi$ , $2\pi$ , $\frac{1}{2}\pi$ , $\pi^2$ )
31	$2^5 \div 2^5 = 3 \dots\dots\dots$	( 2 , 0 , 10 , 1 )
32	A circle whose radius length is 14 cm., then the surface area of this circle = ..... $\text{cm}^2$ ( $\pi = \frac{22}{7}$ )	( 154 , 616 , 750 , 1386 )
33	The area of base of cube is $49 \text{ cm}^2$ , then its lateral area = ..... $\text{cm}^2$	( 392 , 294 , 196 , 98 )
34	The lateral area of a cuboid of length 3 cm., width 2 cm. and height 4 cm. = ..... $\text{cm}^2$	( 20 , 24 , 40 , 52 )
35	a cube of edge length 6 cm. then its total area = ..... $\text{cm}^2$	( 36 , 72 , 144 , 216 )

36	$(-19)^{\text{zero}} + (19)^{\text{zero}} = \dots\dots\dots$	( -1 , 0 , 1 , 2 )
37	$(-5)^3 \dots\dots\dots N$	( $\in$ or $\subset$ or $\notin$ or $\subsetneq$ )
38	If the perimeter of one face of a cube = 12 cm., then its total area = ..... $\text{cm}^2$	( 9 , 45 , 54 , 36 )
39	$4^2 \times 3^2 = \dots\dots\dots$	( $(12)^0$ , 12 , $(-12)^2$ , $(12)^4$ )
40	the circumference of a circle is 44 cm., then the length of its diameter is ..... cm	( $\pi = \frac{22}{7}$ ) ( 14 , 22 , 44 , 154 )
41	$(-1)^3 \dots\dots\dots (3)^{\text{zero}}$	( < , > , = , $\leq$ )
42	If the lateral area of a cube is $36 \text{ cm}^2$ , then its total area = ..... $\text{cm}^2$ .	( 144 , 81 , 54 , 96 )
43	The circumference of the circle = ..... ( $\pi r$ , $\pi r^2$ , $2\pi r$ , $2\pi r^2$ )	
44	the lateral area of a cuboid with base in the shape of a square with side length 8 cm and the height of the cuboid is 5 cm = ..... $\text{cm}^2$	( 40 , 80 , 160 , 240 )
45	$(-1)^{104} + (-1)^{103} = \dots\dots\dots$	( zero , -1 , 1 , 2 )
46	the sum of edge lengths of a cube is 24 cm., then T.S.A = ..... $\text{cm}^2$	( 16 , 36 , 4 , 24 )
47	If $x = -1$ , $y = 2$ , then the negative number in the following is ..... ( $x^2 + y^2$ , $x + y$ , $x^2 + y$ , $x - y$ )	
48	the total area of a cube is $324 \text{ cm}^2$ , then the area of face = ..... ( $54 \text{ cm}^2$ , $81 \text{ cm}^2$ , $54 \text{ cm}$ , $81 \text{ cm}$ )	
49	$-9^3 \dots\dots\dots (-3)^2$	( < , = , > , $\geq$ )
50	the sum of edge lengths of a cube is 96 cm., then its lateral area = ..... $\text{cm}^2$	( 8 , 64 , 256 , 384 )
51	A circle with radius length 7 cm., then its surface area = ..... $\pi \text{ cm}^2$ .	( 7 , 14 , 21 , 49 )

52	the ratio between T.S.A and L.S.A of the cube is .....	( 2 : 3 , 3 : 4 , 2 : 3 , 1 : 2 )
53	$3^2 + 3^2 + 3^2 = \dots\dots\dots$	( $2^6$ , $4^6$ , $3^3$ , $2^9$ )
54	a cube the perimeter of its base is 36 cm., then its lateral area = ..... $\text{cm}^2$	( 9 , 324 , 36 , 486 )
55	the L.S.A of the cuboid whose dimensions are 3 cm., 4 cm. and 0.6 dm is .....	( $72 \text{ cm}^2$ , $8.4 \text{ dm}^2$ , $84 \text{ dm}^2$ , $84 \text{ cm}^2$ )
56	$(-1)^8 + (-1)^9 + (-1)^{\text{zero}} = \dots\dots\dots$	( 0 , -1 , 1 , 2 )
57	A circle of diameter length 10 cm., then its area = ..... $\text{cm}^2$ ( $\pi = 3.14$ )	( 50 , 100 , 78.5 , 25 )
58	the additive inverse of $(-3)^0$ is .....	( 3 , -3 , 1 , -1 )
59	the ratio between the lateral surface area and the total surface area of a cube = .....	( 2 : 3 , 3 : 4 , 6 : 4 , 1 : 2 )
60	A circle of diameter length 8 cm., then its area = ..... $\pi \text{ cm}^2$ .	( 4 , 8 , 16 , 64 )
61	the ratio between the area of one face and the total area is .....	( 2 : 3 , 1 : 4 : 1 : 6 , 6 : 1 )
62	the total area of a cube = area of one face $\times$ .....	( 4 , 5 , 6 , 8 )
63	$(-100)^{\text{zero}} \dots\dots\dots -100$	( $<$ , $=$ , $>$ , $\leq$ )
64	The lateral area of cuboid = perimeter of the base $\times$ .....	( height , length , width , the base )
65	the area of the circle whose radius length is $2\pi \text{ cm}$ is ..... $\text{cm}^2$	( $4\pi$ , $2\pi^2$ , 12.56 , $4\pi^3$ )
66	if the base area of a cube = $49 \text{ cm}^2$ , then its lateral area = .....	( 294 , 196 , 9604 , 49 )

67	$(-6)^2 \dots\dots\dots (-12)$	$( > , < , = , \leq )$
68	if the circumference of the circle is 88 cm ,then its area = .....	$( \pi = \frac{22}{7} )$
69	A cuboid with a square base ,its lateral area is $224 \text{ cm}^2$ ,its height is 14 cm.,then the side length of its base is ..... cm.	$( 14 , 4 , 2 , 3 )$
70	the additive inverse of $(-7)^0$ is .....	$( 7 , 1 , -7 , -1 )$
71	the total area of the cuboid with length is 12 cm ,width is 6 cm and height is 4 cm = ..... $\text{cm}^2$	$( 216 , 36 , 360 , 288 )$
72	$5^4 \div 5^m = 3^0$ ,then $m = \dots\dots\dots$	$( 4 , -4 , 3 , 0 )$
73	 <p>the area of the figure = .....</p> <p><math>( \pi = \frac{22}{7} )</math></p>	 <p>the area of the figure = .....</p> <p><math>( \pi = \frac{22}{7} )</math></p>

## Remember that

- $(-a)^{\text{even}} = (a)^{\text{even}} \rightarrow (-3)^4 = (3)^4$
- $(-a)^{\text{odd}} = -(a)^{\text{odd}} \rightarrow (-3)^5 = -(3)^5$
- $(-1)^{\text{even}} = 1 \rightarrow (-1)^{100} = 1$  ,  $(-1)^{\text{odd}} = -1 \rightarrow (-1)^{99} = -1$
- $(a)^{\text{zero}} = 1$ , where  $x \neq 0 \rightarrow (2)^0 = 1$  ,  $(-5)^0 = 1$
- $(-3)^0 + (3)^0 = 2$
- $(-1)^{99} + (-1)^{100} = 0$
- **Circumference of circle** =  $2\pi r$  or  $\pi d$
- $r = \frac{c.f}{2\pi}$
- **Area of circle** =  $\pi r^2$
- **L.A of a cube** = the area of 1 face  $\times 4 = e \times e \times 4$
- **T.A of a cube** = the area of 1 face  $\times 6 = e \times e \times 6$
- **area of 1 face** =  $\frac{L.A}{4} \rightarrow e = \sqrt{\frac{L.A}{4}}$
- **area of 1 face** =  $\frac{T.A}{6} \rightarrow e = \sqrt{\frac{T.A}{6}}$
- **area of 1 face : L.A** =  $1 : 4$  , **Area of 1 face : T.A** =  $1 : 6$
- **L.A : T.A** =  $4 : 6 = 2 : 3$  , **T.A : L.A** =  $6 : 4 = 3 : 2$
- **L.A of cuboid** = **perimeter of base**  $\times$  **height**
- **T.A of cuboid** = **L.S.A** +  $(2 \times \text{base area})$
- **T.A of cuboid without a lid** = **L.S.A** + **area of base**
- **Perimeter of base** = **L.S.A**  $\div$  **height**
- **Height** = **L.S.A**  $\div$  **perimeter of base**
- **Area of base** =  $\frac{T.A - L.A}{2}$

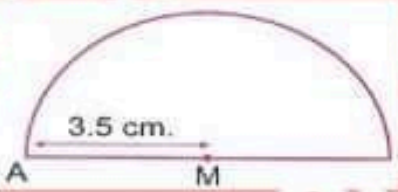
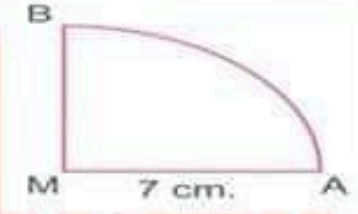
## Choose the correct answer

1	The surface area of the circle = .....	( $\pi r$ , $\pi r^2$ , $2\pi r$ , $2\pi r^2$ )
2	$5 \times 5^2 = \dots\dots\dots$	( $25^2$ , $25^3$ , $5^2$ , <u><math>5^3</math></u> )
3	$2^6 \times 2^2 \div 2^7 = \dots\dots\dots$	( $2^8$ , $2^{12}$ , $2^5$ , <u>2</u> )
4	If the total area of a cube is $24 \text{ cm}^2$ , then its volume = ..... $\text{cm}^3$	( <u>8</u> , 2 , 4 , 16 )
5	$(-3)^3 + (-3)^2 = \dots\dots\dots$	( $(-3)^5$ , $(-3)^6$ , <u>-18</u> , 18 )
6	the additive inverse of $(-1)^{99}$ is .....	( <u>1</u> , 0 , -1 , 2 )
7	$\frac{7^5}{7^4} + 1 = \dots\dots\dots$	( 7 , 1 , <u>8</u> , $7^2$ )
8	A cube of total area $150 \text{ cm}^2$ , then the length of its edge is ..... Cm.	( <u>5</u> , 6 , 15 , 10 )
9	$(-3)^2 < \dots\dots\dots$	( $(1-2)^3$ , <u><math>3^3</math></u> , $2^3$ , $(-3)^3$ )
10	A cube its lateral area = $36 \text{ cm}^2$ , then its volume = ..... $\text{cm}^3$	( <u>27</u> , -27 , -1 )
11	$9^2 \dots\dots\dots (-3)^4$	( < , > , <u>=</u> )
12	A cube shaped box , without a lid , has ..... Faces	( 4 , <u>5</u> , 6 , 8 )
13	A cube of side length 4 cm. , then its lateral area = ..... $\text{cm}^2$	( 32 , <u>64</u> , 84 , 96 )
14	$2^{11} \div 2^8 = \dots\dots\dots$	( 2 , 14 , <u>8</u> , 16 )
15	$(-5)^2 \times (2)^2 = \dots\dots\dots$	( $(10)^0$ , 10 , <u><math>(10)^2</math></u> , $(10)^3$ )
16	The lateral area of a cube is $324 \text{ cm}^2$ , then area of one face = .....	( $54 \text{ cm}^2$ , <u><math>81 \text{ cm}^2</math></u> , $54 \text{ cm}$ , $81 \text{ cm}$ )
17	$-4^2 \dots\dots\dots 16$	( <u>&lt;</u> , > , = , $\leq$ )
18	$(-4)^2 \dots\dots\dots 16$	( < , > , <u>=</u> , $\leq$ )
19	the area of the circle = ..... $\times \pi$	( $r$ , $2r$ , <u><math>r^2</math></u> , $r+2$ )

20	the total of cube = ..... $\times$ area of one face ( <u>6</u> , 2 , 4 , 3 )
21	The additive inverse of $(-5)^2$ is ..... ( 25 , 5 , -5 , <u>-25</u> )
22	If the area of one face of a cube is $9 \text{ cm}^2$ , then its total surface area = ..... $\text{cm}^2$ ( 36 , 81 , <u>54</u> , 486 )
23	$2^3 + 2^2 = \dots\dots\dots$ ( 10 , <u>12</u> , 32 , 64 )
24	the number of faces of the cube = ..... faces ( <u>6</u> , 8 , 12 , 4 )
25	A cube , its volume is $1000 \text{ cm}^3$ , then its lateral area = ..... $\text{cm}^2$ ( 600 , 500 , <u>400</u> , 200 )
26	$(-11)^0 \dots\dots\dots N$ ( <u><math>\in</math></u> or $\subset$ or $\notin$ or $\not\subset$ )
27	A circle its circumference is 88 cm , then its radius = ..... cm. ( $\pi = \frac{22}{7}$ ) ( 28 , 24 , 44 , <u>14</u> )
28	A cube without a lid of edge length 3 cm., then its total area = ..... ( 54 , <u>45</u> , 36 , 9 )
29	the lateral area of the cube = area of one face $\times$ ..... ( 6 , 5 , <u>4</u> , 3 )
30	A circle with radius length = 1 cm., then its area = ..... $\text{cm}^2$ ( <u><math>\pi</math></u> , $2\pi$ , $\frac{1}{2}\pi$ , $\pi^2$ )
31	$2^5 \div 2^5 = 3 \dots\dots\dots$ ( 2 , <u>0</u> , 10 , 1 )
32	A circle whose radius length is 14 cm., then the surface area of this circle = ..... $\text{cm}^2$ ( $\pi = \frac{22}{7}$ ) ( 154 , <u>616</u> , 750 , 1386 )
33	The area of base of cube is $49 \text{ cm}^2$ , then its lateral area = ..... $\text{cm}^2$ ( 392 , 294 , <u>196</u> , 98 )
34	The lateral area of a cuboid of length 3 cm., width 2 cm. and height 4 cm. = ..... $\text{cm}^2$ ( 20 , 24 , <u>40</u> , 52 )
35	a cube of edge length 6 cm. then its total area = ..... $\text{cm}^2$ ( 36 , 72 , 144 , <u>216</u> )

36	$(-19)^{\text{zero}} + (19)^{\text{zero}} = \dots\dots\dots$	( -1 , 0 , 1 , <u>2</u> )
37	$(-5)^3 \dots\dots\dots N$	( <u>E</u> or C or <u>E</u> or <u>C</u> )
38	If the perimeter of one face of a cube = 12 cm., then its total area = $\dots\dots\dots \text{cm}^2$	( 9 , 45 , <u>54</u> , 36 )
39	$4^2 \times 3^2 = \dots\dots\dots$	( $(12)^0$ , 12 , <u><math>(-12)^2</math></u> , $(12)^4$ )
40	the circumference of a circle is 44 cm., then the length of its diameter is $\dots\dots\dots \text{cm}$	( $\pi = \frac{22}{7}$ ) ( <u>14</u> , 22 , 44 , 154 )
41	$(-1)^3 \dots\dots\dots (3)^{\text{zero}}$	( <u><math>\leq</math></u> , > , = , $\leq$ )
42	If the lateral area of a cube is $36 \text{ cm}^2$ , then its total area = $\dots\dots\dots \text{cm}^2$ .	( 144 , 81 , <u>54</u> , 96 )
43	The circumference of the circle = $\dots\dots\dots$	( $\pi r$ , $\pi r^2$ , <u><math>2\pi r</math></u> , $2\pi r^2$ )
44	the lateral area of a cuboid with base in the shape of a square with side length 8 cm and the height of the cuboid is 5 cm = $\dots\dots\dots \text{cm}^2$	( 40 , 80 , <u>160</u> , 240 )
45	$(-1)^{104} + (-1)^{103} = \dots\dots\dots$	( <u>zero</u> , -1 , 1 , 2 )
46	the sum of edge lengths of a cube is 24 cm., then T.S.A = $\dots\dots\dots \text{cm}^2$	( 16 , 36 , 4 , <u>24</u> )
47	If $x = -1$ , $y = 2$ , then the negative number in the following is $\dots\dots\dots$	( $x^2 + y^2$ , $x + y$ , $x^2 + y$ , <u><math>x - y</math></u> )
48	the total area of a cube is $324 \text{ cm}^2$ , then the area of face = $\dots\dots\dots$	( <u><math>54 \text{ cm}^2</math></u> , $81 \text{ cm}^2$ , $54 \text{ cm}$ , $81 \text{ cm}$ )
49	$-9^3 \dots\dots\dots (-3)^2$	( <u><math>\leq</math></u> , = , > , $\geq$ )
50	the sum of edge lengths of a cube is 96 cm., then its lateral area = $\dots\dots\dots \text{cm}^2$	( 8 , 64 , <u>256</u> , 384 )
51	A circle with radius length 7 cm., then its surface area = $\dots\dots\dots \pi \text{ cm}^2$ .	( 7 , 14 , 21 , <u>49</u> )

52	the ratio between T.S.A and L.S.A of the cube is <u>3:2</u> ( 2 : 3 , 3 : 4 , 2 : 3 , 1 : 2 )
53	$3^2 + 3^2 + 3^2 = \dots\dots\dots$ ( $2^6$ , $4^6$ , <u><math>3^3</math></u> , $2^9$ )
54	a cube the perimeter of its base is 36 cm., then its lateral area = $\dots\dots\dots \text{cm}^2$ ( 9 , <u>324</u> , 36 , 486 )
55	the L.S.A of the cuboid whose dimensions are 3 cm., 4 cm. and 0.6 dm is $\dots\dots\dots$ ( $72 \text{ cm}^2$ , $8.4 \text{ dm}^2$ , $84 \text{ dm}^2$ , <u><math>84 \text{ cm}^2</math></u> )
56	$(-1)^8 + (-1)^9 + (-1)^{\text{zero}} = \dots\dots\dots$ ( 0 , -1 , <u>1</u> , 2 )
57	A circle of diameter length 10 cm., then its area = $\dots\dots\dots \text{cm}^2$ ( $\pi = 3.14$ ) ( 50 , 100 , <u>78.5</u> , 25 )
58	the additive inverse of $(-3)^0$ is $\dots\dots\dots$ ( 3 , -3 , 1 , <u>-1</u> )
59	the ratio between the lateral surface area and the total surface area of a cube = $\dots\dots\dots$ ( <u>2 : 3</u> , 3 : 4 , 6 : 4 , 1 : 2 )
60	A circle of diameter length 8 cm., then its area = $\dots\dots\dots \pi \text{ cm}^2$ . ( 4 , 8 , <u>16</u> , 64 )
61	the ratio between the area of one face and the total area is $\dots\dots\dots$ ( 2 : 3 , 1 : 4 : <u>1 : 6</u> , 6 : 1 )
62	the total area of a cube = area of one face $\times \dots\dots\dots$ ( 4 , 5 , <u>6</u> , 8 )
63	$(-100)^{\text{zero}} \dots\dots\dots -100$ ( < , = , <u>&gt;</u> , $\leq$ )
64	The lateral area of cuboid = perimeter of the base $\times \dots\dots\dots$ ( <u>height</u> , length , width , the base )
65	the area of the circle whose radius length is $2\pi \text{ cm}$ is $\dots\dots\dots \text{cm}^2$ ( $4\pi$ , $2\pi^2$ , 12.56 , <u><math>4\pi^3</math></u> )
66	if the base area of a cube = $49 \text{ cm}^2$ , then its lateral area = $\dots\dots\dots$ ( 294 , <u>196</u> , 9604 , 49 )

67	$(-6)^2 \dots\dots\dots (-12)$	$( \geq , < , = , \leq )$
68	if the circumference of the circle is 88 cm ,then its area = .....	$( \pi = \frac{22}{7} )$
69	A cuboid with a square base ,its lateral area is $224 \text{ cm}^2$ ,its height is 14 cm.,then the side length of its base is ..... cm.	$( 14 , \underline{4} , 2 , 3 )$
70	the additive inverse of $(-7)^0$ is .....	$( 7 , 1 , -7 , \underline{-1} )$
71	the total area of the cuboid with length is 12 cm ,width is 6 cm and height is 4 cm = ..... $\text{cm}^2$	$( 216 , 36 , 360 , \underline{288} )$
72	$5^4 \div 5^m = 3^0$ ,then $m = \dots\dots\dots$	$( \underline{4} , -4 , 3 , 0 )$
73	 <p>the area of the figure = .....  <math>( \pi = \frac{22}{7} )</math></p>	 <p>the area of the figure = .....  <math>( \pi = \frac{22}{7} )</math></p>